The 1806 Battle of Blaauwberg

–

an archaeological perspective

by

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submitted in accordance with the requirements for

the degree of

MASTER OF ARTS

in the subject

ARCHAEOLOGY

at the

UNIVERSITY OF SOUTH AFRICA

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January 2019

DECLARATION

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I, Willem Hutten, declare that 'The 1806 Battle of Blaauwberg – an archaeological perspective' is my own work and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

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Signed this 22nd day of January, 2019.

Willem Hutten

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ACKNOWLEDGEMENTS

This research would not have been possible if it was not for the impetus provided by the FoBCA and Battle of Blaauwberg Interest Group. Roy Fuller-Gee, as the driving force behind the FoBCA, has contributed tremendously towards this research by arranging access to the site and providing the required hardware. Roy has also been the link between the City of Cape Town and Blaauwberg Nature Reserve.

Ian van Oordt has spent many hours researching the battle and has given endless support, and shared valuable information and insights into the battle and associated events. Ian's knowledge and experience of battle-related aspects have been invaluable.

Without the metal detecting of Alan Wright, Robert Turvey, John Gravenor, Clayton Alison, Lance Turner, Steph Little, and many more metal detector volunteers, spending numerous hours persistently transecting the grids, this research would not have been possible. Their knowledge and experience have been a great help in conducting our surveys. The guidance, support and input provided by both Alan and Robert have, since the project's inception, been key to its success.

Garry Thomson and Joe Ribaudo have been involved with research into the battle for many years and have contributed greatly through their insight and hard work. Garry provided access to the Battle of Blaauwberg artefact collection retrieved from previous research. Many hours of discussion have also been of great help to obtain a better understanding of the era. Similarly, the continuous fieldwork by Francois van Lill, Anja Huisman and Marius Breytenbach made a massive contribution to the successful conclusion of the field surveys. I do appreciate the ongoing assistance of students from the University of Cape Town, and the many volunteers.

The financial assistance of the UNISA bursary and NSFAS contributed to lighten the financial burden of the project. Catherine Damerell's help with proofreading and editing is appreciated. I value the guidance by Prof. Jan Boeyens and Dr. Natalie Swanepoel during this project. I also extend my gratitude towards my wife, Louisa Hutten, who has been a pillar of strength while guiding the research expertly. Lastly, I want to thank my children, Kara, Mia and Ryno, for their regular assistance and for generously allowing me the time to complete the research.

ABSTRACT

British forces captured the Cape of Good Hope from the Batavian Government in 1806. The archaeological investigation into the Battle of Blaauwberg aims to identify the strategic use of the landscape by both sides focusing on specific geographic areas. Metal detector surveys and the mapping of archaeological material clarified the various battle positions within the reconstructed historical environment. Analysis of the artefacts provided insight into their use and the strategies followed by both armies. Altogether the evidence illuminated the use of the landscape and its influence on the course of the battle. This unique multi-pronged study of a South African battlefield and its material cultural record sheds new light on the 1806 battle, thereby complementing and refining prevailing historical interpretations. It explores methodological issues and approaches that are critical to the domain of battlefield archaeology in South Africa, where a large number of battle sites still await archaeological investigation.

KEY WORDS

Battlefield archaeology; Conflict archaeology; Geo-physical surveys; Metal detector surveys; 1806 Battle of Blaauwberg; General Jan Willem Janssens; General David Baird; Batavian Republic; Blaauwberg Hill; Melkbosstrand.

OPSOMMING

Britse magte het die Kaap die Goeie Hoop in 1806 van die Bataafse Regering verower. Die argeologiese ondersoek na die Slag van Blaauwberg is gerig op die identifikasie van die strategiese gebruik van die landskap deur beide kante met die fokus op spesifieke geografiese areas. Metaalverklikkeropnames en die kartering van argeologiese materiaal het die onderskeie gevegsposisies in die gerekonstrueerde geskiedkundige omgewing opgeklaar. ’n Ontleding van die artefakte het insig gebied in hul gebruik en die strategieë wat beide gevegsmagte gevolg het. In die geheel gesien, belig die getuienis die gebruik van die landskap en hoe dit die verloop van die geveg beïnvloed het. Hierdie unieke meervlakkige studie van ’n Suid-Afrikaanse slagveld en sy materiële kultuurrekord werp nuwe lig op die 1806-veldslag en sodoende word bestaande historiese interpretasies aangevul en verfyn. Dit verken metodologiese kwessies en benaderings wat kritiek is vir die domein van slagveldargeologie in Suid-Afrika waar ’n groot aantal gevegsterreine nog argeologies ondersoek moet word.

ISISHWANKATHELO

Imikhosi yaseBhritane yayihlutha iKoloni Yethemba eyayibizwa ngokuba yi*Cape of Good Hope*, iyihlutha kurhulumente waseBatavia ngonyaka we-1806. Uphando lwezixhobo zakudala zexesha ledabi i*Battle of Blaauwberg* lujolise ekuqwalaseleni ubuchule bokusetyenziswa kobume belizwe ngala macala mabini, lugxininisa kwiindawo ezithile. Isifundo sembali senza uqikelelo lobunjani bedabi, kwaqhutywa iintlolo zimvo ezisebenzisa izixhobo zesinyithi nokuphengululwa kwezixhobo ezifumaneke kwizakhiwo zakudala nezacacisa iindawo ezahlukeneyo zedabi. Izixhobo zokusebenza ezafunyaniswayo zatyhila ulwazi lwendlela ezazisetyenziswa ngayo namacebo obulumko awayesetyenziswa yimikhosi yamacala omabini. Ubungqina bacacisa ukusetyenziswa kobume belizwe nefuthe lobo bume ekuqhubekeni kwedabi. Le ndlela ikhethekileyo, nenobuchule obuziindidi ezahlukeneyo, yokufunda indawo yedabi laseMzantsi Afrika, nengxelo yezinto zenkcubeko, inika ulwazi olutsha ngeli dabi lowe-1806, kwaye yongeza ikwacolisisa indlela yokutolika imbali yeli dabi. Kuphandwa imibandela yeendlela zokwenza namacebo abaluleke kakhulu kwicandelo lophando lwezixhobo zakudala zamadabi eMzantsi Afrika, apho iziza zamadabi eziliqela zisalinde ukuba kuphandwe ngazo.

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CHAPTER 1. INTRODUCTION

Wijnen (2015:3) suggests that the archaeological research into a battlefield contributes to our knowledge and understanding of the engagement. The main goal of such research is the pursuit of knowledge and to understand the sequence of events, the military engagement, the strategy or logistics from an archaeological perspective. The focus of this research into the 1806 Battle of Blaauwberg was to investigate the impact the historical environment had on the battle events. Even though it became clear that contemporary maps position the battle incorrectly, the research went beyond merely correcting locational issues of the battle.

To address the locational issues of the battle events, the reconstruction of the historical landscape was required. Subsequently, the impact of the environment on these battle events could be evaluated. A large assemblage of battle-related artefacts, retrieved through systematic field surveys, were analysed to provide insight into the battle. The research incorporated several metal detector operators and volunteers that contributed towards a successful project that provides an archaeological perspective on the 1806 Battle of Blaauwberg.

1.1. 1806 Battle of Blaauwberg Archaeological Project

The 1806 Battle of Blaauwberg marked the capture of the Cape of Good Hope from the Batavian Republic by British forces and formed part of the strategic international positioning of Britain to counter the advances made by France under Napoleon. The battle was fought in an area over 250 hectares, and all the related activities, including deployment, attack and retreat, and the clearing of the battlefield, lasted only a couple of hours (Anderson 2008; Erasmus 1972; Krynauw 1999; Steenkamp 2005). This remarkable event has been the focus of extensive historical research, and in 2006, the 200-year celebration was the impetus for the creation of the Battle of Blaauwberg Interest Group. This group has since lost some vigour but still has a very active website. However, since the inception of the archaeological investigation into the battle, local awareness of this event has been rekindled.

During the early 1990s, initial research was carried out to identify the exact site of the 1806 Battle of Blaauwberg. Garry Thomson, Dan Sleigh, Major Tony Gordon and Willem Steenkamp conducted this research, but it was never concluded. The researchers, with the help of metal detector operators, surveyed a small portion of the battlefield, mainly surrounding the location of the farmhouse of Justinus Keer, which was used as a field hospital after the battle. The locations of the retrieved artefacts were recorded and mapped, while the artefacts were retained and made available for the current research.

In the meantime, the Friends of Blaauwberg Conservation Area (FoBCA) arranges public events and educational outings to increase awareness of the Blaauwberg Nature Reserve (BBNR). Several public meetings focusing on the cultural and historical aspects of the BBNR have been held, most notably presentations by archaeologists: Jonathan Kaplan, Graham Avery and Jayson Orton; historians: Dan Sleigh, Major Tony Gordon, Willem Steenkamp and, more recently, Ian van Oordt, to enhance the awareness of the rich cultural remnants of the greater Blaauwberg area.

On 23 February 2013, the FoBCA, under Roy Fuller-Gee, was granted permission by Heritage Western Cape (HWC) to use metal detectors on the site of the 1806 Battle of Blaauwberg, to identify the defensive battle line of the Batavian forces. Permit conditions stipulated that no items were to be dug out or removed from the site. Harriet Clift, an archaeologist associated with the City of Cape Town, was required to be present during the exercise at the request of HWC. It was, however, decided to test or sample a few of the stronger signals, showing either large objects or objects close to the surface since, by signal alone, it could not be determined if the identified artefacts were battle-related or not. Items were photographed and reburied in the exact same spot. The investigation of a small portion of the site of the 1806 Battle of Blaauwberg on 23 February 2013 showed that metal detectors were effective to identify sub-surface metal objects.

The positive results obtained from the February metal detector survey was the impetus for the establishment of the 1806 Battle of Blaauwberg Archaeological Project under the directorship of Louisa Hutten, with Willem Hutten as the project manager.

The FoBCA and the Battle of Blaauwberg Interest Group joined forces with the Department of Archaeology at the University of Cape Town (UCT) to conduct archaeological research on the battlefield. The aim of the archaeological research was to determine the exact location of the battle-related events, by investigating, amongst others, cannon projectiles. HWC issued a permit (Permit No. 130730TS01) valid until August 2016, but an extension was obtained for another three years, to August 2019. I believe that a better understanding of the battle and its location, could lead to better management of this significant heritage resource.

A vast amount of information and primary research data about the battle and its aftermath have been collected but despite the information, the exact location of the battle lines remained unclear. Contemporary maps (Chief Directorate: Surveys and Mapping 2010) show the location of the battle near Blaauwbergsvlei farm, while historical maps[1] also show the battle much closer to Blaauwberg Hill than it really was (Anderson 2008; Erasmus 1972; Krynauw 1990; Steenkamp 2005). While the actual location of the battle lines remains unclear, the topography, accessibility, cannon fire range, together with the known deployments of the two sides suggest more likely locations for the battle lines than shown on the historical maps.

Until the institution of the 1806 Battle of Blaauwberg project, no archaeological research has contributed to the analysis of this significant historical event. Archaeological research on the battlefield could be challenging since limited archaeological evidence would be available from a single event that lasted only a couple of hours. Despite this challenge, archaeology can certainly help to provide new perspectives and insights in any academic assessment of the conflict (Hughes & Trigg 2011: 19).

The study area falls within the BBNR and large portions of the reserve are infested with alien vegetation, the *Acacia saligna*, also known as Port Jackson willow. Ninety-six hectares of alien vegetation were cleared and burnt to stimulate the regrowth of the critically endangered Sand Plain Fynbos. Unfortunately, the burning also activated the regrowth of *Acacia saligna* so much that further weeding was required. From a biodiversity point of view,

[1] NL-HaNA, Janssens/Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

access to the 96 hectares of Sand Plain Fynbos restoration area was limited as it could influence the growth of the fynbos. The archaeological research had to utilise the window period for access to this area prior to starting the weeding programme. This area was the initial focus of the research, with metal detector surveys traversing the open landscape. This is also the area known as the British artillery positions since the British forces initially located their artillery within this area.

Since the rapid regrowth of the *Acacia saligna* hampered the effectiveness of metal detector surveys, it was decided to conclude the surveys within the British artillery area after the identified study area had been surveyed. Subsequently, surveys of the battlefield continued in the southern parts of the BBNR following a rigid survey plan to traverse every single survey block within the identified study area. The surveys were then extended to include outlying areas such as the field hospital and Kleinberg.

Over 40 survey days were spent on the battlefield with volunteers, ranging between six and 18 in number, covering the greater part of the battlefield. Numerous battle-related artefacts were retrieved during surveys. Survey training and survey workshops were conducted to establish a comprehensive methodology that would both benefit the research and develop a healthy relationship between archaeological research and hobby metal detector operators.

Research into the battle comprised not only field survey but also incorporated analysis of the retrieved artefacts to obtain a full comprehension of the battle events. Historical and archival research provided enough background information pertinent to the research. The research not only provided insight into the various aspects of the battle while answering specific research objectives but was also a catalyst for secondary research to be conducted on aspects and areas related to the battle. Marius Breytenbach (2016) investigated the location of Justinus Keer's farmhouse which was used as the field hospital after the battle. Breytenbach (2017) subsequently explored the sequence and settlement at Blaauwbergsvlei during the 18th and 19th centuries. Further, Francois van Lill (2016) studied the British campsite in Melkbosstrand before the battle.

1.2. Research question and research objective

Historians have studied and produced accounts of the course and events of the 1806 Battle of Blaauwberg but there was still uncertainty about the exact location of the battlefield and associated strategic positions. Archaeological research has not been applied to enhance the historical record and give a greater understanding of this event. Despite this, archaeology can provide additional insight into an academic review of the conflict (Hughes & Trigg 2011: 19). Foard (2003: 6) emphasises that battles and the campaigns of war cannot be adequately understood without the study of the historical terrain at various levels, and hence an archaeological investigation into the 1806 Battle of Blaauwberg is required.

Foard (2003: 7) further stresses that the documentary record must be supplemented with appropriate archaeological evidence. Foard (2003: 7) identifies two essential components of this holistic study: firstly, to place the events within the larger landscape by using topographical evidence in the historical records that, in turn, can be tested through the archaeological evidence collected; and secondly, once the locational issues have been resolved, landscape reconstruction can enable research into the impact of the terrain on the historical events.

To resolve the locational issues, insight into the engagement must be obtained and Krynauw (1999: 90) relates that General Jan Willem Janssens (commander of the Batavian forces) executed his defensive strategy as planned, by occupying the main north–south route from Cape Town up the west coast of South Africa. General David Baird mentions in his despatches to Lord Castlereagh that on the morning of 8 January 1806, the British army formed into two brigades, marched towards Cape Town, and confronted the Batavian defensive line (James 1837: 44).

Although, the exact location of the battlefield of the 1806 Battle of Blaauwberg or the associated strategic military positions and deployments were still unknown within the larger area demarcated as a heritage site. However, where the historical record is incomplete or vague, the archaeological evidence could provide an opportunity to augment our understanding of the events.

The aim of this research was, therefore, to investigate how the landscape influenced the decisions and movements of the opposing parties through the identification of the various significant battle-associated areas during the 1806 Battle of Blaauwberg, using a historical archaeological approach within an interdisciplinary framework.

I have reconstructed the historical landscape using a combination of archaeological survey and analytical techniques, by identifying the main and subsidiary routes utilised. Further, I matched the natural features still present today with those mentioned in documentary accounts and maps, thus developing an understanding of the topography and geology of the area.

The archaeological evidence emphasised and confirmed the geographic and spatial distribution of the historical battle-related events within the larger landscape. This provided guidance on how the landscape was strategically utilised by both opposing commanders, and how the landscape influenced specific battle events. Carman (2005: 216) states that the primary interest should not focus on the identification of the place where battles have occurred, but rather on gaining insight into the experience of battle by understanding how space might have been used by the participants. It was therefore important not only to identify the location of the battle, but also to investigate aspects that influenced the battle. Although the concept of space encompasses a variety of aspects, this research only focused on the physical landscape and its influence on the military engagement.

To achieve the aims of the research, five main geographic areas within the battlefield landscape were investigated and are discussed in this dissertation: firstly, the positioning and extent of the Batavian defensive line in terms of north–south spatial distribution, and the east–west placement of the different Batavian regiments; secondly, the identification of actual locations of the defensive artillery positions forward and towards the flanks of the Batavian line; thirdly, confirming the British strategic heavy artillery positions and the routes used for the advance of the British regiments and field artillery; fourthly, investigating the initial skirmish on the outlying area of Kleinberg; and finally, identifying and surveying the locality and the extent of the main area of engagement.

The five geographic areas identified provided a framework from within which the fluid nature of the battle was investigated and tested. The identified areas could also not be examined in isolation but needed to be considered as important aspects within the larger event.

1.3. Research significance

To explain the importance of the archaeological research of any battle, the significance of the event must be fully understood. Ragragio (2005: 102) justifies the study of battlefields firstly because battles are pivotal historical events and 'written by the victor'. Archaeology provides an independent check of these past events as written accounts are not always reliable and may often be biased. Secondly, battlefields are unique sources of information about the past. Thirdly, if recorded and preserved properly, battlefields can serve as tourism and educational resources. Lastly, battlefields evoke vivid images of struggles and invoke the emotions of those who took part (Ragragio 2005: 103).

Wyllie (2014: 216) states that the significance of battlefields is situated in the culture of a nation and expressed through art, literature and music to create a sense of national identity. The 1806 Battle of Blaauwberg might not be part of the popular dialogue in terms of nation building in South Africa in the 21st century but it is very significant in several other aspects. Colonialism in the South African context has become a topic of much contention within the current political sphere. The British campaign to take political control of the Cape of Good Hope is seen as the first advance of British colonial rule in South Africa. Although South Africa became a Republic, breaking with the British Commonwealth in 1961, the subsequent government was neither elected by nor representative of the population of South Africa (Cameron 1992: 293). Many historically disadvantaged South Africans have since fought for political freedom during what is known as the struggle years, occupying the second half of the 20th century. Politically, this struggle, its related events, and its heroes have become the theme for nation building (Cameron 1992). Many colonial era or European related events have since become less important, hence the low level of public awareness about the event of this research. This, however, does not lessen the significance of the violent change of government that occurred in 1806.

According to Kane (2006: 12), the importance of battlefields is also situated in the fact that the events are often used as propaganda to grip public interest and support. Unfortunately, as previously mentioned, the 1806 Battle of Blaauwberg is no longer part of the popular discourse in South Africa, although public support for awareness of the event has flourished. This is clear in the community groups, web pages, events and meetings that commemorate the event and stimulate dialogue on the broader history of the whole area. Further, by evaluating the military engagement and gaining insight into the events, propagandistic claims might be more critically assessed. Evaluating the use of the landscape by both military commanders during the 1806 Battle of Blaauwberg can, for example, illuminate any misrepresentation of the battle, such as the notion that General Janssens went into battle unprepared.

Although not an explicit aim of this research, the identification and elimination of a specific bias and inaccuracies in the representation of the battle events can be achieved through a representative account of the events as depicted in the data accumulated in this research.

An archaeological perspective on the 1806 Battle of Blaauwberg is significant as it provides additional insight into the prevalent historical interpretation of the events. Only a few primary sources specifically relate to the battle events, while a further number shed light on the events leading up to the battle and its aftermath. It is consequently a difficult task to comprehend the battle events from limited sources available. Historians have attempted this and produced descriptions of the events, but the bias and lack of detail in certain areas could not be accounted for. Vencl (1983: 117) states that military activities are coupled with political power, which do not produce material remains, or at least the remains are difficult to interpret. This, according to Vencl (1983: 117), leads to a biased perception of developments and activities. Kane (2006: 12) argues that from the archaeology it is possible to obtain an accurate understanding of the events during a conflict, while Pollard and Oliver (2002: 45) suggest archaeology presents the details of the events that the historical sources omit. The analysis of material culture associated with the battle can fill in many details and images of a conflict or battle that are neglected in traditional historical accounts (Pollard & Oliver 2002: 8). The research into the 1806 Battle of Blaauwberg has encountered similar

challenges, as seen in one aspect of the battle. The locational issues of the battle could be assumed from the historical maps and documentation, but these are all positioned within the larger landscape. No details about positioning are available; consequently, it is the aim of the research to address the detailed locational issues by making use of archaeology.

Few people are untouched by war because of increased violence and conflict in the modern era (Kane 2006: 1). Vandkilde (2003: 126) adds that war is associated with power, control and cruelty, and often leads to social reproduction and change. A change of government is a significant event in any country, and an archaeological investigation into this battle could enhance our understanding of the events. The battle events must not be forgotten, but should be presented in a balanced and accurate manner that does not glorify war and violence (Sutherland & Holst 2005: 9). In South Africa, archaeologists continuously emphasise the lack of exposure to archaeology within the school curriculum, to create an awareness of the historical events and the field of archaeology. There is much debate about the need for exposure to the larger public, to advance the relevance of archaeology in the South African context. Besides the relevance of the subject, the relevance of the topics of research also requires an elevation in interest. It has become imperative for researchers to focus on the importance of their focused research for various reasons, including, but not limited to, research funding and tourism development. Further, the commemorative significance of a battle site can never be subordinate to the research objectives and outcomes.

The 1806 Battle of Blaauwberg is of international significance as several countries were directly or indirectly involved and affected. Couzens (2004: 62) reveals that 13 nationalities took part in a typical European-style battle that would have been a distant part of the Napoleonic wars, in southern Africa. South Africa has seen a range of battles and wars, but the involvement of a diversity of European countries in association with local troops elevates its significance. Besides the two major role players during the Napoleonic wars, Britain and France, soldiers from other nationalities were also involved in the battle. The intricacies of international politics also contributed to this diverse participation, as the Cape of Good Hope was, at the time of the battle, under the Batavian rule. The Cape, which was previously

under the rule of the Dutch East India Company[2], became home to people from across the world. Slaves, from amongst others, Mozambique, Madagascar and Indonesia (Shell 1994) made significant contributions to the battle, while the indigenous Hottentot Light Infantry[3] were also involved. A large contingent of German mercenaries from Waldeck, the 5th Regiment and the Jaeger Regiment, formed the supposed backbone of the Batavian defensive line. It is therefore clear that the significant participation in this battle is not limited to two countries, but instead extends to several countries.

Battlefields represent perpetual shrines and memorials, which should be treasured and admired (Sutherland & Holst 2005: 5). Incorporating places and events in the general and recently revitalised trend for public war commemoration ought, therefore, to be encouraged. Further, an accurate portrayal of the battle can stimulate commercial opportunity in that the battlefield and associated areas attract tourism and enhance a public interest. The site of the 1806 Battle of Blaauwberg was declared a National Monument under the National Monuments Act of 1969 and is protected under the National Heritage Resources Act (NHRA Act 25 of 1995) as a Provincial Heritage site. Since the inception of the current BBNR, resources have mostly been allocated to the environmental aspects of the reserve, while the heritage significance has, regrettably, been lacking in financial support. Through publications, reports and by creating public interest, the research into the battle tries to elevate the remembrance of the battle to be noteworthy within the larger Blaauwberg historical landscape.

The research had little local reference to similar studies, and therefore the contribution the archaeological perspective on the 1806 Battle of Blaauwberg offers the domain of battlefield archaeology in South Africa cannot be underestimated. The investigation will add to the debate on battlefield archaeology and provide a reference for continued archaeological research. It is anticipated therefore that the establishment of this specific approach will bring about further debate and lead to the development of this field of research within the South African context.

[2] Vereenigde Oostindische Compagnie (VOC), an international Dutch trading company
[3] The name of this group at the time of the battle, later became known as the Cape Corps and subsequently the South African Cape Corps Service Battalion

1.4. Project location

The site of the 1806 Battle of Blaauwberg lies within the BBNR, on the West Coast of South Africa, approximately 25 km from Cape Town. Within the Cape floral kingdom, the BBNR is a global biodiversity hotspot and a significant project of the City's Biodiversity Strategy. This area represents a diverse lowland habitat near Cape Town on the edge of the West Coast floral kingdom.

The BBNR (inland section is located on the R27 near Melkbosstrand (Figure 1). The coastal section of the BBNR is not significant to this research and is not indicated on the map.

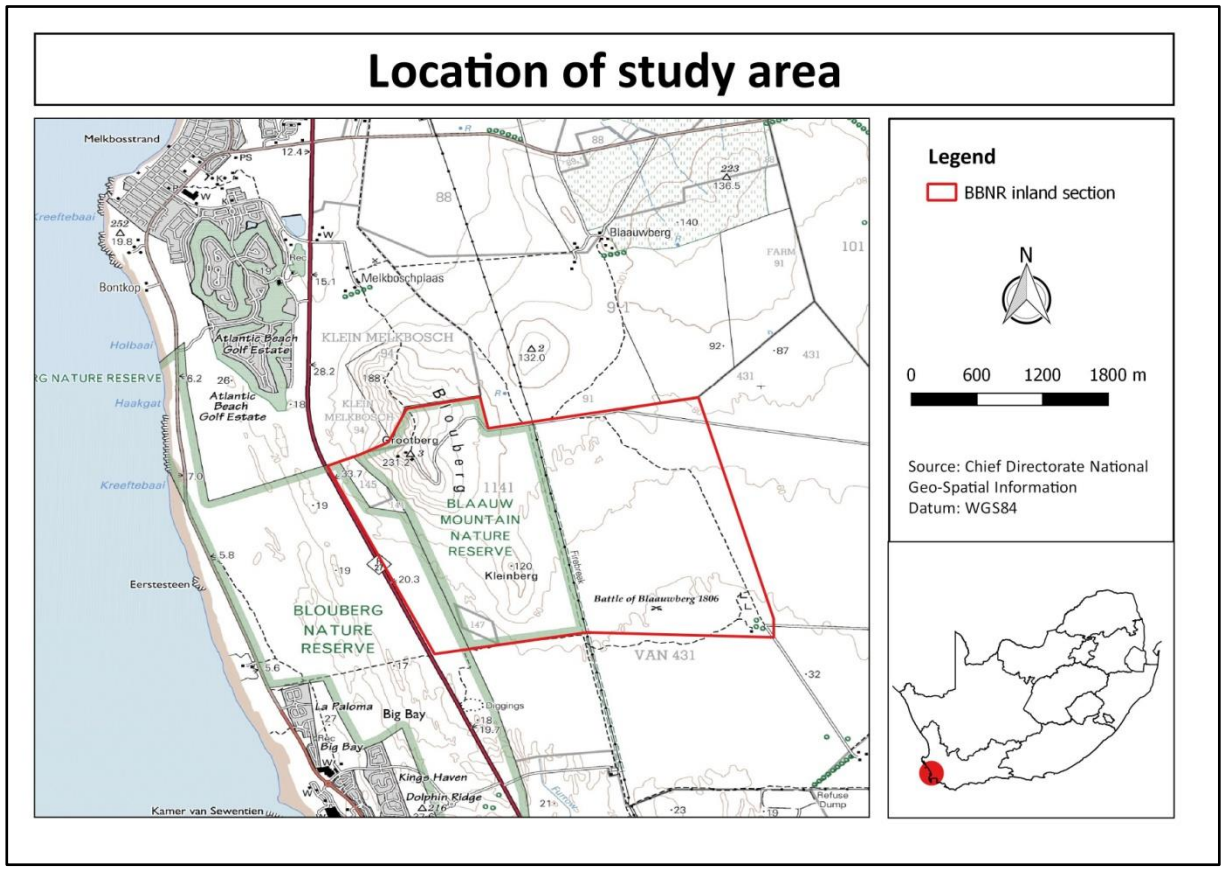


Figure 1. Location of the study area on an extract from 1:50 000 topographical maps (3318CB, CD, DC and DA c2000) showing the assumed location of the Battle of Blaauwberg (Chief Directorate: Surveys and Mapping 2010)

The location of the inland section of the BBNR is indicated on an extract of the 3318CB, CD, DC and DA 1:50000 topographical maps of 2010 (Figure 1). The positions of Blaauwberg Hill (referred to as Grootberg on the map) and Kleinberg are visible, while the position of the 1806 Battle of Blaauwberg is also shown on the map extract.

The location of the study area (Figure 2) is shown, superimposed in red, on aerial images 3318DC 01, 3318DA 21, 3318 CD 04/05, 3318CB 25 and 24 (Chief Directorate: National Geo-Spatial Information 2014).

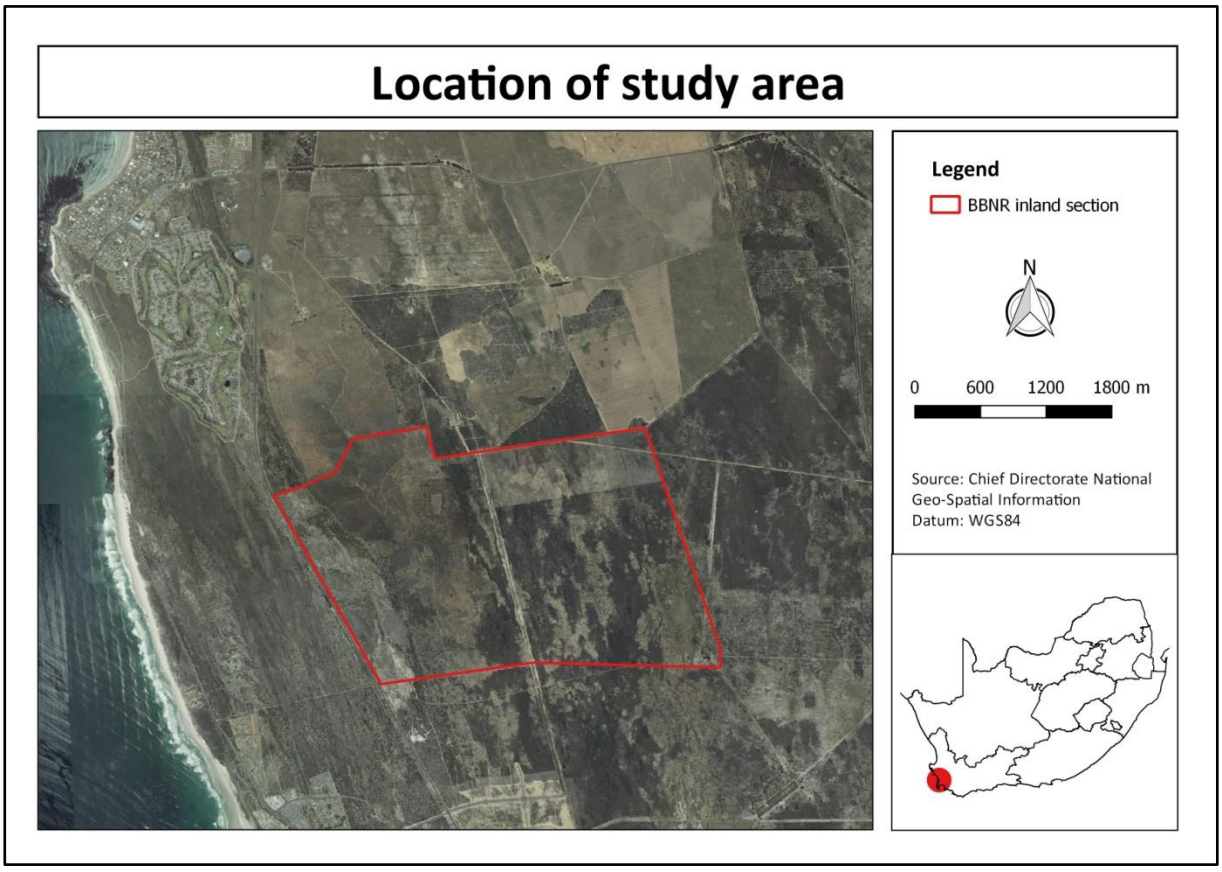


Figure 2. Location of the study area on aerial images (Chief Directorate: National Geo-Spatial Information 2014)

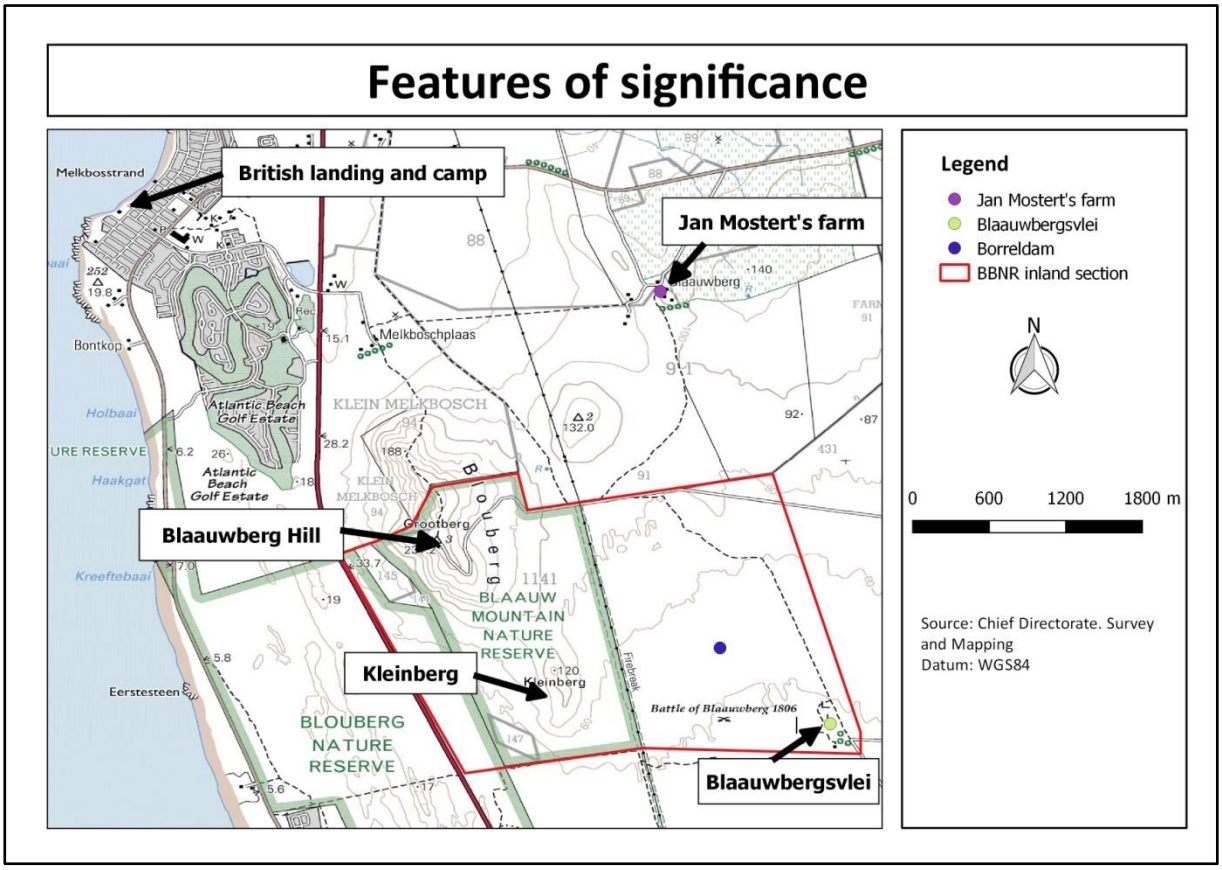


Figure 3. Features significant to the 1806 Battle of Blaauwberg

Figure 3 depicts the areas and features significant to the 1806 Battle of Blaauwberg and provides clarity on the location of the features in relation to each other.

1.5. Conclusion

The West Coast of South Africa is a unique biodiversity hotspot that provides a multitude of destinations for tourists who visit the area. The BBNR is also favourably positioned to offer tourists travelling from Cape Town a gateway to the biodiversity the area is rich in. Its proximity to Cape Town is ideal for tourist activities, not only those en route elsewhere, but also local visitors. Besides the endangered vegetation and diversity of fauna found within the BBNR, the cultural heritage which the reserve protects makes the greater BBNR an appealing new destination.

Cultural heritage in the larger Cape Town area is, because of its long and rich history, important and it receives the required protection and management. While archaeological research has contributed positively to the historical knowledge of the area, the 1806 Battle

of Blaauwberg has been neglected, with no archaeological research yet on this significant site. This research project has, at its core, an archaeological perspective of the 1806 Battle of Blaauwberg, incorporating archaeological surveys and fieldwork to evaluate the historical event.

An investigation of the previously unspecified battlefield was not the only aim of the research; it was also my intention to use the locational information to understand the intricacies of the battle. This provided the opportunity to test aspects of the battle by making use of both archaeological data and primary documentary sources.

Archaeological battlefield research that investigates the developing nature of a battle is unique in the South African context, while the battle itself is significant in various ways. Although public interest has diminished, if it ever really existed, this does not reduce the battle's significance in South African history. South African history is rife with many examples of skirmishes, battles and wars, and research into these events is important as it provides valuable insight into the volatile political nature of this country's past. The archaeological approach used in this study is, therefore, an important point of reference for future research in this field.

1.6. Chapter outline

The discussion in CHAPTER 2 focuses on the domain of battlefield archaeology and evaluates various battlefield archaeological projects conducted in Europe and North America. The importance of including such terms of reference cannot be ignored as both the methodology used and analysis conducted were influenced by established approaches on similar projects around the world.

CHAPTER 3 analyses several secondary sources in which the 1806 Battle of Blaauwberg is described. While some of these sources were produced purely as tourist guides, others provide valuable information and have sound reference lists. The historiographical overview gives further insight into the battle from different writers' points of view but was approached with caution as various errors occurred. CHAPTER 4 offers eyewitness accounts of the battle by assessing available primary documentation produced at the time of the

battle. Secondly, and a critical aspect of the research, the maps produced to represent the battle and surrounding landscape were evaluated and compared for insight into the development and course of the battle. It further emphasises the archaeological record retrieved from the battlefield by providing context to its specific location.

South African history is rich in a variety of conflicts ranging from precolonial era uprising to more recent wars, revolts and conflicts, and the methodological approach, as seen in CHAPTER 5, is guided by the battle, the era of the battle, and by the research question. The field surveys were developed over time and became more efficient and effective, while not relinquishing any accuracy. The reconstruction of the historical landscape is an important aspect of CHAPTER 5, while the surveys and analysis of the artefacts are also discussed in detail. Selected artefact classes were analysed as they provide valuable insight into the battle.

The results of the analysis of artefacts are discussed in CHAPTER 6, while the historical landscape and its impact on the course and development of the battle also receive the required attention. While most of the results are based on the outcome of the analysis of artefacts, primary sources, maps and the battlefield itself, the results of the field surveys and the associated location of artefacts, as evident on location maps, provide for a fascinating interpretation and discussion. CHAPTER 7 provides the conclusion of the research and serves to connect all the discussion into a meaningful insight into the battle.

CHAPTER 2. BATTLEFIELD ARCHAEOLOGY

Various historians studied the 1806 Battle of Blaauwberg, but this dissertation provides the first archaeological perspective on this significant battle. Archaeological research cannot be conducted in isolation and needs to be grounded within a domain through which comparisons and contrasts can be drawn. CHAPTER 2 provides the context within which the research was conducted and discusses the association of battlefield archaeology and conflict archaeology within the context of historical archaeology. Further, by studying various examples of archaeological research conducted on battlefields across the world and in South Africa, it provided the terms of reference to develop a suitable methodology.

2.1. A brief introduction to the context of the research within battlefield archaeology

The definition and scope of historical archaeology are continuously being debated, while also being expanded into areas previously confined to history (Ragragio 2005: 101). Ragragio (2005: 101) continues that a defining characteristic of historical archaeology is its focus on the past in the small scale, while Gilchrist (2005: 330) adds that historical archaeology refers to contextual associations of small groups during short time spans.

Orser (2004: 19) defines historical archaeology as a "multi-disciplinary field that shares a special relationship with the formal disciplines of anthropology and history, focusing its attention on the post-prehistorical past, and seeks to understand the global nature of modern life." Hall (2000: 2) elaborates on this definition that the historical archaeologist has long been concerned with the "small things" of everyday life, while Beaudry and Mrozowski (1998) allude to historical archaeologists working on sites and the remains of historical events with many documentary sources as well as those with no written records. Hall (2000: 4) also defines historical archaeology as a modern and creative field, compared to imagining the past that are remote and unknown, before being interpreted.

Theune (2013: 243), however, argues that it has become increasingly clear that both written and oral sources only shed light on specific aspects of the past. Besides the skewed perception of history, sources could provide contradictory views of the past and therefore only tell part of the story. The study of the 1806 Battle of Blaauwberg falls within this

domain of historical archaeology because it utilises the documentary sources to complement the archaeological study. Orser's (2004: 19) definition of historical archaeology describes the approach as multi-disciplinary, with the involvement of military historians, historians, archaeologists and metal detectors, but also included landscape reconstruction and a Geographic Information System (GIS).

Orser (2004: 20), in describing the documentary resources available to archaeologists, points out that each source was created by a different person for a unique reason. Therefore, its purpose might not be focused or even relevant to the specific research aim, but could still provide valuable information. Besides the focus on the source material, Galloway (2006) states it has long been recognised that material culture and documentary sources represent independent lines of evidence. This study of the 1806 Battle of Blaauwberg makes use of documentary sources and the material culture retrieved from the surveys to reconstruct the events during this battle. The material culture is a most valuable source of information to the archaeologist and differentiates the archaeologist's research from that of the historian. The aim of a material culture studies approach is to explore the relationship between people and objects (Tilley *et al.* 2006). From the point of view of archaeological research into the 1806 Battle of Blaauwberg, material culture is central in the understanding and reconstruction of the battle events. Accurate documentation and recording are vital in developing a spatial distribution pattern of the material culture. Specifically for this research, the spatial distribution is critical to understand the battle. Deetz (1996: 36) comments that material culture reveals cultural meaning, and even though the material remains of the 1806 Battle of Blaauwberg do not necessarily reveal aspects of everyday life, they disclose valuable information about warfare.

While much debate continues around the domain of historical archaeology, this battle event falls within the greater sphere of historical archaeology. However, this battle event must be researched and contextualised under the helm of battlefield archaeology under the auspices of the broader conflict archaeology.

Ragragio (2005: 102), though, raises the question: "Why study battle sites?" She elaborates that a new branch of historical archaeology was born in south-eastern Montana - referring

to the Battle of Little Bighorn - studying the faint traces of a brief yet explosive event. The research conducted at the battle site of Little Bighorn is widely regarded as the pioneering work in this new field of archaeology. The study of a battlefield offers many challenges such as that the remains of battle events rarely remain above ground, and, as with the 1806 Battle of Blaauwberg, contain no permanent features. The identification of the battlefield then becomes a problem, as no features are visible. Vencl (1983: 117) states that war and warfare relate to activities involving only a limited amount of material. However, the opposite is true: battlefields are huge sources of significant and almost unused historical information, which the archaeologist can study (Sutherland & Holst 2005: 1). The battle remnants need to be identified, retrieved, recorded and analysed to make relevant conclusions.

To understand the ambit of the study of the 1806 Battle of Blaauwberg within the archaeological context, it is important to look at specific definitions of this field of study. According to Saunders (2010: 18), there is a difference between the narrowly focused battlefield archaeology and what is considered a more inclusive and interdisciplinary conflict archaeology. Conflict archaeology is concerned with investigating events and is focused on conflict as a complex, multifaceted phenomenon. These events may leave a variety of physical traces in many places, all or most of which can possess multiple meanings, and may change their meanings over time (Saunders 2010: 19). Kane (2006: 1) defines battlefield archaeology as the archaeological study of ancient or historical conflict, while Sutherland and Holst (2005: 2) define it as an all-inclusive term describing the discipline of the archaeology of ancient or historical conflict. They argue that the term battlefield archaeology is confusing, as the focus is on the battle and ignores the role of the field in which the battle was fought. It is therefore clear that the discussion is ongoing and possibly depends on the specific event.

Foard (2003: 6) criticises recent developments in battlefield archaeology, arguing that it primarily investigates the physical evidence left by the action rather than the archaeology of the battlefield itself. The pioneering work conducted at the Little Bighorn battle site in Montana in the 1980s (Scott *et al.* 1989) could be the initial spur to involvement in

battlefield archaeology (Carman 2005: 216). However, during the 1950s, Oman and Weller investigated sites of the Peninsular Campaign (1808–1813) in Spain and Portugal with the focus on the documentary evidence for battle action (Carman 2005: 216). Subsequently, during the research at the Little Bighorn site in the United States of America, the recording of artefacts, topographic research and the search for remains of the dead, brought battlefield archaeology to the fore. Archaeologists all over the world explored similar approaches, for example, the studies of the Killiecrankie Battlefield in Scotland (Kilpatrick & Bailie 2015), the Newtonian Battlefield in Missouri (Cubbison *et al*. 1997), the Chalmette Battlefield in Louisiana (Cornelison & Cooper 2002), and at the Lookout Mountain Battlefield in Chattanooga, Tennessee (Heckman 2002; Alexander & Heckman 2004).

Further, the work by Banks and Pollard (2001) at the 1879 Zulu war site at KwaMondi near Eshowe introduced battlefield archaeology to South Africa, while their continued work led to the establishment of the University of Glasgow's Centre for Battlefield Archaeology. The archaeological excavations at Rorke's Drift in KwaZulu-Natal by Webley (1990) focused on the structures used by the British military as fortifications during attacks by Zulu warriors during the Anglo-Zulu war. Mason (1975) investigated the 1880–1881 fort at Potchefstroom that was the site of an 11-week siege in which the British tried to seize control of both Natal and Transvaal during the First Anglo-Boer War. Research at the site of an outpost of a voluntary British military unit, Steinaecker's Horse, during the Anglo-Boer War, was started in 1997 to reconstruct aspects of their daily life (Van Vollenhoven *et al*. 1998: 114). Investigations into the defensive structures used by the Boers in 1881 during the battle of Rooihuiskraal (Van Ewyk 1986) and the ongoing archaeological research into the military fortifications of Pretoria (Van Vollenhoven 1995) further contributes to the domain of battlefield archaeology in South Africa.

Battles, wars, skirmishes and conflicts have been the focus of many historical studies in South Africa. Webb (2014) focused on the Cape Colony's Frontier or Xhosa Wars in 1799, and De Villiers (2013) provided a perspective on John Graham's involvement in the fourth Frontier War. The Anglo-Boer or South African War has also produced numerous historical perspectives (Judd & Surridge 2013; Nash 1999; Pretorius 1999; Wessels 2000) intended to

describe and interpret the events, while Van Schalkwyk and Smith (2004) provided an archaeological perspective to reinterpret the Maleboho War when Government troops from the Zuid-Afrikaansche Republiek[4] invaded the Bahananwa chiefdom in 1894.

Numerous researchers have followed suit in this relatively new domain of historical archaeology, but already it is exciting to witness the development of the field of study. For the research team involved with the 1806 Battle of Blaauwberg, it has become clear that the South African context with many battles and skirmishes provides a large scope of work. It has therefore been of utmost importance to know of the latest ideas in research and make useful contributions towards the ambit of battlefield archaeology.

Unfortunately, few historical accounts consider the 1806 Battle of Blaauwberg (Anderson 2008; Erasmus 1972; Krynauw 1990; Steenkamp 2005) through the review of primary documentation. Only a relatively small number of primary sources are available that refer to the specific battle events, but fortunately, more documentation exists that provides insight into the planning, events leading up to and the aftermath of the battle. Even though historical research makes valuable contributions, the archaeological evidence provides specific details for this event (Carman 2005: 215). The material evidence presents itself as scatters across an area of land rather than an occupation scatter (Carman 2005: 218). Unlike previous archaeological investigations in the South African context of battlefield archaeology, which focused mainly on the physical structures associated with conflict, in this dissertation I use a broad landscape approach with due emphasis on the spatial distribution of artefacts. Not only is the focus on the identification of the battle remnants, its spatial distribution and subsequent analysis and interpretations, but also on the impact of the environment on the battle events.

Sagona (2015: 34) argues that the original function of weaponry and relics retrieved from battlefields assume new roles, standing as tangible reminders of the human cost of war, of the extreme conditions and of regret. These artefacts have their own life, because they were so recently used that they share collective memories of global histories and family histories. Not only the histories of families but also the ideas and thought processes of the

[4] The Transvaal Republic

manufacturers and leaders at the time are evident in the artefacts. These artefacts also exhibit the technological advances that the field of warfare has made. Their spatial distribution resembles the cognitive processes of the role players in the battle, as their specific documented positions reveal the various positions within the larger landscape. These positions were used for strategic purposes and could have been beneficial or detrimental to the outcome of the battle.

While battlefields appear to be the least organised space occupied by humans, and are a messy, chaotic and often tragic expression of our capacity for violence, they are the scenes where the courses of nations are charted (Ragragio 2005: 102). Militaries around the world act on behalf of governments and leaders and execute prevailing political will. Successful military campaigns depend on several factors such as resources, tactics, leadership and discipline. Experience in the art of warfare originates from a system that has proven its success over many battles. British campaigns during the Napoleonic era drew from their experience in past battles and executed this in the new campaigns. Even though it seems as if no order existed and chaos reigns, these events all function within a well-documented system of warfare.

To provide direction to the research into any battlefield, a critical analysis and evaluation of similar projects around the world needs to be conducted. Selected examples of archaeological studies conducted on battlefields are discussed in the following section.

2.2. Examples of battlefield archaeology

2.2.1. Battle of the Little Bighorn

The Battle of Little Bighorn, or Custer's Last Stand as it is also known, occurred in south-eastern Montana during 1876, when Colonel John Gibbon, General Alfred Terry and General George Crook of the United States army tried to drive the Sioux and Cheyenne back into reservations (Scott 2010). The later substantial archaeological endeavours at the battlefield describe how the artefacts and other mute physical evidence are interpreted to augment the written record.

The main aim of the research was to reconstruct and interpret the behaviour and movements of the opponents during the ensuing battle to lay to rest the ongoing debate about the actual events. During the research, the interdisciplinary nature of the project was emphasised as historians, archaeologists and various specialists worked together to achieve a single outcome (Scott 2010; Johnson 1990: 110).

In terms of a field survey methodological approach, a large grid system of 100 m x 100 m was established to guide the survey within which transects with a spacing of three to five metres were surveyed. The researchers estimated that coverage of 35 per cent was obtained with this methodology, which was enough sample to analyse and make meaningful interpretations (Scott 2010: 46). Three groups were utilised during the field survey, comprising survey, recovery and recording. The survey team, with the help of metal detectors, located and marked the artefact; subsequently the recovery team excavated the artefact but left it in place. The recording team next photographed, recorded and removed the artefact, ensuring that the location was duly documented. Detailed analysis and curation of the finds in the laboratory then followed.

Scott (2010; Johnson 1990), however, argues that artefact patterns provide insight into behaviour, while individual artefacts provide details about troop behaviour, and the relationship of an artefact or an artefact group gives context and provenience. Similarly, the research into the 1806 Battle of Blaauwberg has made use of methodology applied and tested on other battlefields. As outlined in CHAPTER 5, a grid system was employed, and surveys were conducted in linear transects. The transects, opposed to the three to five-metre spacing used at Little Bighorn, spanned an average of two metre spacing per transect. This spacing was determined by the arm-swing of the detector, with the aim being a more complete coverage of the survey area. However, it must be considered that the overgrown vegetation impacted on the survey transects, hence influencing the coverage of the study area.

The researchers at Little Bighorn made use of a re-inventory survey, to survey predetermined grids utilising tighter linear transects, rather than the three to five-metre normal survey transect. By comparing the results, they determined that, even though a

higher number of artefacts were retrieved, the artefacts retrieved during the initial survey statistically represented an accurate sample (Scott 2010: 50).

The groundbreaking work of researchers during this project was an excellent reference work and guide in establishing research objectives and a methodology for the research at the site of the 1806 Battle of Blaauwberg.

2.2.2. Killiecrankie battlefield

The Battle of Killiecrankie, the initial battle of the First Jacobite Rising in Scotland, took place on 27 July 1689 between the army of William of Orange and Jacobite forces of Scots and Irish under the command of John Graham of Claverhouse. After the battle, the campaign continued for a couple of years until William offered the Jacobite forces a pardon in exchange for their oath of allegiance in 1691 (Kilpatrick & Bailie 2015: 7).

Archaeological surveys were initiated and completed between 12 and 16 August 2015 and on 13 October 2015. Surveys on more than 25 hectares of land yielded over 500 artefacts of metal origin. Only high-performance metal detectors were used that could discriminate between ferrous, non-ferrous, and all other metals. Linear transects at 10-metre intervals were surveyed across the fields in predetermined grids. In smaller fields, a tighter linear transect with a spacing of five metres was used. Only targets identified within the topsoil were recovered, while deeper targets were left in situ. Finds were accurately recorded, cleaned, stored and conserved (Kilpatrick & Bailie 2015: 8).

The artefacts retrieved from the battlefield, such as musket, carbine and pistol balls, provided insight into the routes and the areas of close combat (Kilpatrick & Bailie 2015: 17). Further, areas of intense fighting were identified from the presence of pistol balls, as their effective range is 25 to 30 metres.

The Killiecrankie battlefield project confirmed the information and provided a better understanding of the 1689 uprising. It also highlighted the effective use of metal detecting and archaeological survey techniques to interpret battle events. The 1806 Battle of Blaauwberg archaeological project followed a similar methodology, but a unique analysis of

the results was made to provide a thorough and comprehensive perspective of the events. A similar approach was used, by surveying within predetermined grids that guide the survey, to cover most of the study area. This approach proved valuable as a structured approach to the survey yielded a comprehensive sample of battle-related remnants. Even though the survey with metal detectors only covered a percentage of the battlefield, because of the swinging nature of the machine's operation, a complete sample collected from the battlefield, was obtained.

2.2.3. Battle of Prestonpans

The Battle of Prestonpans, first conflict of the Jacobite rising of 1745, was fought on 21 September of that year between the English government forces of George II and the Jacobites loyal to the Scottish Stuarts. Urban development has since encroached on parts of the battlefield, but there are areas which remain relatively unscathed by development. The core of the battlefield is still open but is traversed by roads (Pollard & Ferguson 2008).

Detailed historical maps show the exact location of the battle, whilst eyewitness accounts provide further insight into the battle. The objectives of the research were to determine the extent of the battlefield and how it survived within the modern landscape. Community involvement and co-operation were important to enhance the local importance of the site (Pollard & Ferguson 2008).

Pollard and Ferguson (2008: 9) indicate that historical research, topographic survey, trial trenching evaluation, and metal detector surveys formed part of their approach. The trenches and geophysical surveys were conducted at a later stage and not included in the initial phase of the research. According to Pollard and Ferguson (2008: 9), "traditional archaeological methods such as excavation are not suitable to record or recover these artefact scatters." Through systematic metal detector surveys artefacts, comprising metals such as lead, iron and copper alloys, were identified and retrieved.

A common approach used by archaeologists during the surveys of battlefields is to utilise metal detectors since they do provide an adequate sample of the artefact scatter. Other geophysical equipment, undoubtedly, offers additional ability to identify and retrieve

artefacts. Since the artefacts are located as a scatter, the value lies in their spatial distribution that could provide extensive information about movement, development and deployment. The accurate recording within the pre-determined survey areas was therefore of utmost importance.

2.2.4. Battle of the Boyne

The Battle of the Boyne on 12 July 1690 is a well-known and politically significant battle in Irish history. It is a well-documented battle, and historical work has been conducted on the battle between the Williamite and Jacobite armies. However, little archaeological research has been carried out to provide data for the management and preservation of the site (Cooney *et al.* 2002: 8).

One aspect of the research involved the use of gradiometer surveys to identify the location of the historical settlement. Further, seven ploughed fields were surveyed through geophysical instruments and phosphate surveys to assess the range of evidence of past human activities. Magnetometer and side-scan surveys of the river were conducted to identify the possible five locations where the Williamite army crossed the river (Cooney *et al.* 2002: 9).

Illegal metal detecting at the battle site resulted in the loss of a significant number of battle-related material that could have been useful in interpreting the battle events. Metal detecting surveys were used to survey the area. All occurrences of metal were recorded and compared to the results of the geophysical surveys. Four test pits were subsequently excavated yielding positive results related to the research questions (Cooney *et al.* 2002: 10).

The archaeological project at the Battle of Boyne was designed as a pilot assessment for the archaeological potential of the battlefield and has proven successful. Key areas of the battlefield were identified and material associated with the battle recovered. The use of geophysical equipment within a specifically designed framework is helpful and assisted in achieving a variety of objectives.

The researchers only conducted test excavations to examine the effectiveness of the methodology, therefore the battlefield still offers a huge archaeological potential that could be researched. Of further significance to the 1806 Battle of Blaauwberg was the incorporation of environmental conditions that influenced the battle events. This avenue of research was further explored during this study of the 1806 Battle of Blaauwberg.

The value of geophysical equipment used during the research of battlefields should not be underestimated since it has the potential to provide answers to specific research questions. The Battle of the Boyne project used the geophysical surveys for specific areas of research and was highly effective. Since this project was only to determine the potential of the battlefield for future studies, a range of equipment and techniques were employed that could now be tested, evaluated and possibly used for future studies. As outlined in CHAPTER 5, a similar approach was planned for the 1806 Battle of Blaauwberg, but early on during the establishment of the methodological approach, the use of magnetometer surveys was considered ineffective. The presence of ferricrete just below the surface influenced the results, so the magnetometer survey was discontinued.

2.2.5. Battle of Caulk's Field

On 30 August 1814, British navy Captain Sir Peter Parker came ashore with a raiding party of about 150 men hoping to surprise the force at the Kent County militia camp on Maryland's eastern shore in the United States. Parker and his men were instead ambushed, with Parker and 13 other soldiers losing their lives during an hour-long skirmish. This skirmish at the Battle of Caulk's Field was a victory for the Americans who suffered only three men wounded (Sharpe 2013: 43).

Metal detector surveys were employed, as a single layer of shallowly buried artefacts were present compared to the multiple layers created by continuous habitation of a site. The researchers' aim was to compare the archaeological remains to the written record, the features of the landscape and the knowledge of military tactics (Sharpe 2013: 44). Linear transects were surveyed using metal detectors and the locations of all artefacts were precisely marked. Many artefacts were retrieved and marked, and through a detailed

analysis of musket balls, canister shot, buttons and buckles, a clear pattern was observed that could be interpreted. These results resolved several issues about the battle, such as the extent of the battlefield, the British approach to the battlefield, and their retreat. Further, the location of a second American camp, used after the battle, was revealed (Sharpe 2013: 44).

The research into the Battle of Caulk's Field shows how the archaeological evidence and the historical record coincide to produce a better understanding of the events. Equally, the 1806 Battle of Blaauwberg used archaeological evidence to reach a better understanding of events, but the historical sources also contributed valuably to the research. It became clear that the analysis and interpretation of the data were crucial in the complete comprehension of the historical events. Sharpe (2013: 44) also comments on the difference between the remnants of a battle compared with the remnants of a site, over long periods of habitation. The research framework was designed to suit a single layer of artefacts compared with multiple layers of artefacts. A site with a single layer of artefacts requires a different research approach and framework from a site with multiple layers of occupation and artefacts. Instead of excavations, surveys are rather used on battle sites. Excavations are perfect for determining the sequence of occupation, but the spatial distribution of battle-related remnants is crucial in interpreting a battle site.

2.2.6. Battle of Monmouth

The Battle of Monmouth on 28 June 1778 was one of the largest and longest battles during the American Revolution. The battle was fluid, traversing nearly 30 km where the British forces of approximately 21 000 men opposed the American army with about 15 000 men (Sivilich & Stone 2009: 101). To assess the battlefield, the archaeological project could not have been approached by using traditional archaeological techniques. The evaluation had to be quick and efficient in locating artefacts while mapping and interpretation of the data occurred. The Monmouth battlefield is the first Revolutionary War battlefield to be completely excavated and surveyed through metal detector surveys (Sivilich & Stone 2009: 103).

Interpreting the events relied heavily on the locational data of the artefacts. The data collection became more precise over the course of the fieldwork resulting in predictive models suggesting firing positions of artillery and men. By organising artefact classes into different layers within the GIS, it was possible to isolate specific events and features. By analysing the clusters of artillery shot, it was possible to identify a significant feature, such as the orchard, into which the Americans aimed most of their shots, and it concurred with the historical documentation about this aspect of the battle (Sivilich & Stone 2009: 108).

The archaeological project on the Battle of Monmouth shows how battlefield archaeology can be used to interpret historical events. The results from metal detector surveys, within the confines of a clear methodology and objective, together with a detailed analysis of retrieved material, provided the researchers with the much-needed evidence to complete the investigation. The study of the 1806 Battle of Blaauwberg has noted the methodology and process of analysis conducted by the researchers at the Battle of Monmouth, which has resulted in significant advances in the comprehension of the events. The analysis of artefact classes and the associated GIS mapping, implemented during the 1806 Battle of Blaauwberg project, were influential in making concise conclusions about the positions and routes used to advance.

2.2.7. Rorke's Drift battlefield

Rorke's Drift is famous because of the achievements of a small group of British soldiers defending the military post against a large Zulu army. This battle formed part of the Anglo-Zulu wars and occurred on 22 January 1879 (Webley 1990: 9). In 1988, archaeological excavations were undertaken to locate the foundations of the historical hospital, while excavations during the following year were conducted to locate the foundations of the British store (Webley 1990: 10). Webley (1990: 11) concludes that the archaeological evidence contributed to historians' understanding of the events and provided a more detailed and accurate picture of the battle.

The Rorke's Drift research is significant in South African battlefield archaeology as it offers insight into how archaeology and historical sources could be utilised to study an event.

Webley (1990: 11) states that treasure seekers systematically looted the site, and possibly other similar sites, resulting in only a small number of metal artefacts being retrieved. It would be interesting to use metal detector surveys around the military post of Rorke's Drift to establish if enough battle remnants can be retrieved to interpret additional aspects of the battle.

Webley (1990: 11) alludes to treasure seekers looting the site of Rorke's Drift. Similar looting forced the research team to proceed cautiously and not to publicise the archaeological work on the 1806 Battle of Blaauwberg. Since the BBNR has not been enclosed until recently, it was decided to not promote the research in the public domain for fear of uncontrolled access to the battle site. It was argued that public knowledge of retrieved artefacts might encourage illegal activity on the site. Further, Anglo-Boer War (or South African War) sites have become the target of illegal detecting and retrieval of artefacts. This could be attributed to these sites having become well known and the artefacts associated with the sites sought after. Becker (2009: 30) observes that metal detecting on archaeological sites for personal gain results in the loss of scientific data and information. Metal artefacts from historical sites resemble only one type of artefact class that could be used for interpreting a site. A skewed perception will result from both the retrieved metal and the archaeological assemblage without metal artefacts. The relevant authorities need to address the illegal looting of the sites as it may have detrimental effects on future research at these sites.

The research at Rorke's Drift had a different focus from the research on the 1806 Battle of Blaauwberg. The focus at Rorke's Drift was primarily on the fortifications and not on the battlefield itself. It, therefore, incorporated the sequence of settlement, events and activities at the site over a long period. Future research on similar sites might include the associated battlefield.

2.2.8. 1880–1881 Fort, Potchefstroom

During the First Anglo-Boer War, or the First Transvaal War, of 1880–1881, the Fort at Potchefstroom was the site of a 14-week siege by Transvaal forces against the British forces

occupying the fort. The earthwork fort itself was hastily constructed to serve the purpose of the military enterprise.

The archaeological excavations at the fort were intended to determine the original structure of the fort and to establish the content of the archaeological deposits (Mason 1975: 2). The challenge during the archaeological project was to distinguish between the materials from different eras occurring in the excavated material since precolonial artefacts and post-fort materials were identified. These could be attributed to the earthwork during the construction phase of the fort bringing in alluvium material containing Stone Age artefacts, and possibly the later construction of a nearby railway line using the fort site (Mason 1975: 7).

Mason (1975: 8) argues that the excavation and proposed reconstruction of the Potchefstroom Fort fills a gap in South African archaeology, as there is a need for objective historical education. Public facilities at archaeological sites with important historical relationships should be coordinated with education in South Africa.

The research at Fort Potchefstroom is another example of battlefield archaeology in South Africa, but also, once again, differs from the 1806 Battle of Blaauwberg archaeological project. The focus of Mason's work was the military fortification associated with the military siege and not the battlefield itself. Although the advances made by Mason are significant to South African archaeology, there are still several aspects that could be investigated.

Mason's argument about the value of objective historical education and the public facilities at important historical and archaeological sites is still relevant in South Africa. It is also pertinent that the significance of a site is elevated through public opinion and participation, and hence the involvement of volunteers and community-based organisations is crucial to establish sites that can be commemorated. Public awareness, the involvement of volunteers and community-based organisations form an important aspect in promoting and conserving archaeological sites. More important is that their involvement must be within a predefined framework. The quality of the research ultimately depends on planning and leadership to achieve the eventual desired outcome.

2.2.9. Steinaecker's Horse outpost

Colonel Ludwig von Steinaecker, commander of a voluntary British military unit called Steinaecker's Horse, was active in the Lowveld and Swaziland during the Second Anglo-Boer War (or South African War) from 1899 to 1902. The main objective of the research was to reconstruct aspects of daily life at the outpost (Van Vollenhoven *et al.* 1998: 114). Archival and literature survey provided much-needed information about the existence of the unit. Archaeological excavations at the site established the location and extent of the structures, and the extent and depth of the midden.

The researchers (Van Vollenhoven *et al.* 1998: 120) concluded that even though little historical information exists about the site, the archaeological excavations revealed enough information to make significant conclusions about the site. Numerous artefacts were recovered from the middens, suggesting military uniforms and other remnants. Interpreting the widespread nature of the artefacts indicated the poor discipline of a volunteer unit, rather than a disciplined military unit. From the artefacts, the diet of the occupants could be derived as mostly comprising the standard military issue of canned beef, sardines and ham, but that these were supplemented through hunting and fishing.

The authors identified the location of the site as part of a larger project documenting military-historical sites in the Kruger National Park and in the former Transvaal. This is significant as numerous military sites exist in South Africa, creating a large prospect for future archaeological work. Within the confines of the Kruger National Park, a spatial project to identify military-historical sites is significant since the conservation and ultimately the heritage management of the sites will be effectively monitored. Within the larger area, military sites or conflict sites have become prone to looting, especially if they are situated near urban and other development sites.

2.3. Conclusion

Historical archaeology and battlefield archaeology as the ambit of the 1806 Battle of Blaauwberg research is a field of study that is well established in large parts of the world. In South Africa, both conflict archaeology and battlefield archaeology have the potential to

develop into major fields of study. South African history is rich in war, conflicts, battles, skirmishes and protests, but has not yet been in the vanguard of archaeological research. Although much research has been conducted on sites of military importance, little research has focused on the development of the battle as an event.

The sample of research conducted on battlefields and sites across the world and in South Africa, discussed above, was used to identify specific aspects that could guide the research into the 1806 Battle of Blaauwberg. As a reference to studies conducted on similar events and on military sites in South Africa, the approach utilised by researchers and the challenges they had to overcome were invaluable to the success of this research project. Not only was the methodological approach used by others on similar projects important, but the analysis and conclusions drawn from results were significant in gaining an understanding of the 1806 Battle of Blaauwberg. The metal detector surveys were therefore conducted within a grid system to cover the study area. Accurate documentation of the retrieved artefacts was necessary to obtain a complete picture of the location of artefact and was used to make significant conclusions.

South Africa has a rich military history and therefore requires extensive research, not only from a historical point of view but also from an archaeological perspective. CHAPTER 3, therefore, provides a historiographical overview of the 1806 Battle of Blaauwberg, before CHAPTER 4 evaluates the primary documentation and maps.

CHAPTER 3. HISTORIOGRAPHICAL OVERVIEW

Various authors and historians provided their own accounts and interpretations of the events by making use of the available primary resources. The following authors produced accounts on the 1806 Battle of Blaauwberg:

- L.J. Erasmus's Master's dissertation (History), 'Die tweede Britse verowering van die Kaap, 1806' (Erasmus 1972);
- D.W. Krynauw & G.S.J. Möller's book, *Blouberg ons beroemdste strand* (Krynauw & Möller 1994);
- D.W. Krynauw's book*, Beslissings by Blouberg – triomf en tragedie van die stryd om die Kaap* (Krynauw 1999);
- T. Couzens' book, *Battles of South Africa* (Couzens 2004);
- W. Steenkamp's book, *Assegais, Drums & Dragoons – a military & social history of the Cape* (Steenkamp 2012);
- M.R.D. Anderson's book, *Blueberg – Britain takes the Cape* (Anderson 2008);
- N. von der Heyde's book, *Field guide to the battlefields of South Africa* (Von der Heyde 2013); and
- J.D. Grainger's book, *British campaigns in the South Atlantic* (Grainger 2015).

Although the authors used the same primary sources, differences occur in the various accounts and representations of the battle events. Some discrepancies that appear in the secondary sources or popular historical accounts of the battle are illustrated. These inaccuracies and inconsistencies are sometimes subtle but cast doubt on the authority of the source. These inaccuracies have also become part of the popular history that is spread about the event. As this dissertation focused on the battle events, only the descriptions and discrepancies relating to the battle events were noted. Further, aspects of the battle that could be archaeologically investigated were also briefly discussed.

3.1. L.J. Erasmus's Master's dissertation

Lourens Jacobus Erasmus produced a commendable dissertation for a Master's degree in History focusing on the second British occupation of the Cape of Good Hope in 1806. Not only the Battle of Blaauwberg but also the political and economic aspects surrounding the events were investigated. Erasmus's (1972) core focus was an investigation of the military history of the events leading up to, during and after the battle.

According to Erasmus (1972: 121), Janssens departed from Cape Town on 6 January 1806, heading towards Rietvlei to be within reach of the British forces. On 7 January at six o'clock in the morning, the Batavian forces marched northwards and continued until three o'clock in the afternoon to reach Blaauwbergsvlei, where they settled in and prepared for battle. Erasmus (1972: 124) argues that during the march towards Blaauwbergsvlei, the Batavian forces extended from the coastal dunes up to the inland plains, with the troops set up in what would be their subsequent battle formations and positions.

On the morning of 8 January, Janssens wanted to move early but received word that the British forces were already approaching. Janssens attempted to reach the heights but failed to do so as the British were already descending the heights next to Blaauwberg Hill. Erasmus (1972: 127) describes how the Batavian force extended their line across the plain to create the impression that their capacity matched the British line. In addition, Janssens also ordered a one-eighth rotation to further the impression that they matched the British force.

Erasmus (1972: 128) shows the positions of the various Batavian troops as the light dragoons and mounted artillery being on the right flank, and further left the 9th Regiment Jaegers, with two howitzers and three 6-pounder cannons, the 22nd Dutch Regiment of Infantry, the French Marines, the 5th Regiment of Waldeck and then the burgher cavalry. The artillery was taken out of the line and positioned where required. Erasmus (1972: 128) continues by stating that no fewer than 50 men, consisting of jaegers and the Hottentot Light Infantry, were positioned in the dunes between the sea and Blaauwberg Hill.

Erasmus (1972: 130) indicates that the British forces drove off the Batavian light troops on the beach, on their way to ascending the heights of Blaauwberg Hill. Erasmus (1972: 136)

reports that the Waldeck soldiers turned around and fled as soon as the first cannon shot landed amongst their right flank. Despite Janssens' best efforts, he could not manage to stop their retreat. The 22nd Regiment also collapsed under the British Second Brigade's bayonet charge, while the French Marines fought valiantly. Unfortunately, heavy losses amongst the French forced them to retreat, with the jaegers and grenadiers also making an orderly withdrawal. Lieutenant Pelegrini and his mounted artillery, which continued firing gallantly at the British, were the last to depart from the battlefield after Janssens ordered them to retreat (Erasmus 1972: 136).

Erasmus (1972) provides a comprehensive analysis of the battle and associated events, and presents the sequence of events chronologically with in-depth discussions on the rationale behind specific decisions. Erasmus's account and description of the events is closely aligned with the accounts as depicted in the primary sources.

3.2. D.W. Krynauw & G.S.J. Möller's *Blouberg – ons beroemdste strand*

D.W. Krynauw and G.S.J. Möller (1994) briefly describe the location and history of the Blaauwberg area in their book, *Blouberg – ons beroemdste strand*. The depiction of the battle itself forms a small portion of the narrative but provides an astute view of the battle. Krynauw and Möller (1994: 35) state that Janssens and his troops marched from Rietvlei on the morning of 7 January 1806 towards Blaauwberg Hill. They stopped close to the farm Janssensgift, from where Janssens and a couple of officers continued onward to observe the British. Janssens could do nothing to stop the British from landing as the artillery cover from the large fleet of British ships was overwhelming. The Batavian force spent the night of 7 January at Justinus Keer's farm, Blaauwbergsvlei. On the news that a British force had landed in Saldanha Bay and was heading towards Cape Town, Janssens decided to attack the invaders the next morning. He sent notice to Cape Town of his intentions, but also indicated that should he be forced to withdraw, all horses and wagons had to be sent to him at the Hottentots Holland Mountain, as planned beforehand.

Krynauw and Möller (1994: 36) describe the location of the farmhouse at Blaauwbergsvlei as near the water's edge, but slightly further south and inland. The Batavian defensive line was

set up between the farmhouse and the southern tip of Blaauwberg Hill, or the so-called Kleinberg. Krynauw and Möller (1994: 36) further relate that as soon as the British scaled the small ridge to the east of Blaauwberg Hill, they noticed the Batavian forces and immediately started with a howitzer bombardment. On their approach, the Second Brigade shot the first volley of musket balls at 250 metres from the Batavian line and subsequently the second volley at 150 metres. After this proved ineffective, General Ferguson gave the order for a bayonet charge at 50 metres. According to Krynauw and Möller (1994: 37), the British 'paid' heavily during this charge, suggesting that they suffered heavy losses.

In evaluating the battle, Krynauw and Möller (1994: 38) assert that Janssens chose the plain as the battleground because neither of the two parties would be able to gain strategic advantage from the battlefield. All that would matter was quality and quantity, in both of which Janssens was at a disadvantage (Krynauw & Möller 1994: 39).

Krynauw spent a large amount of time collecting archival sources on the battle because the battle fascinated him. He also visited the battlefield and his photographs and descriptions, albeit almost 150 years after the battle, are insightful since the area has subsequently been subjected to development and large-scale invasion of alien vegetation.

3.3. D.W. Krynauw's *Beslissings by Blouberg – triomf en tragedie van die stryd om die Kaap*

In his later title, D.W. Krynauw (1999) provides an authoritative account of the 1806 Battle of Blaauwberg in *Beslissing by Blouberg – triomf en tragedie van die stryd om die Kaap*. Krynauw (1999) describes this event from the lead-up to the battle, the battle itself, and the aftermath up to the capitulation.

The British fleet fired their cannons continuously during the evening of 7 January, to such a degree that the magisterial clerk in Tulbagh noted it. Krynauw (1999: 88) argues that Janssens consequently did not attempt to challenge the British near the coast, as his forces would have had to leave the safety of the dunes and hills and be in the open, certain to become targets for the heavy artillery fire.

According to Krynauw (1999: 90), even though the early movement of the British on 8 January surprised Janssens, he set up his defences as he had intended to do. He positioned 50 sharpshooters in the dunes between the sea and Blaauwberg Hill, while mounted burghers waited on Kleinberg. Janssens' left flank consisted of burghers, the Hottentot Light Infantry, infantry and jaegers, the Waldeck Regiment, the French Marines, the 22nd Dutch Regiment and the 9th Regiment Jaegers. Janssens' right flank comprised the mounted artillery and dragoons.

The battle started when the British ascended the heights and soon after, opened fire with their howitzers (Krynauw 1999: 92). General Baird subsequently ordered the First Brigade to dislodge the burghers on Kleinberg, which they accomplished with heavy losses in personnel. The Second Brigade was ordered to advance towards the Batavian line and fired two ineffective rounds of musket fire at too great a distance before a bayonet charge started. Krynauw (1999: 93) believes, even though it is not stated anywhere in the primary sources, the Batavian forces also opened fire with their smoothbore front-loading muskets.

With the collapse of the Waldeck Regiment and Janssens' desperate attempt to persuade them, the 22nd Regiment of Infantry and the French Marines still fought gallantly (Krynauw 1999: 94). Unfortunately, however, under the might of the heavy onslaught, they also crumbled while both the dragoons and the jaegers continued to fight and hold their positions, only to retreat soon afterwards. During the general retreat, heavy cannon fire still came from the Batavian right flank, in the form of Pelegrini's mounted artillery (Krynauw 1999: 95), who persisted with firing until Janssens eventually ordered them to depart the battlefield.

Krynauw (1999) provides a comprehensive and detailed analysis of the 1806 Battle of Blaauwberg, and gives tremendous insight into the battle and associated events. Krynauw further makes intriguing comments and interpretations of various aspects of the battle, which certainly are not contained within the primary sources consulted. Krynauw then presents his interpretation of the duration of the battle and the number of casualties. According to Krynauw (1999: 153), the battle started at five o'clock in the morning and the Political Board in Cape Town received notice of the defeat at half past eleven in the morning.

Krynauw's calculations, therefore, state that the battle ended around ten o'clock in the morning, therefore lasting five hours.

Krynauw (1999: 154) further comments that according to General Baird, the losses on the British side were 15 dead, 189 wounded, and eight soldiers missing, which is a relatively low percentage. Taking into consideration John Graham's comments that the Dutch were bringing down the 24th Grenadiers with every shot (Atkinson 1940: 75), it is difficult to determine whether Baird's account of the number of fatalities during the battle is accurate or not, and this will require further investigation. Further, no information about graves is available, but for Justinus Keer commenting that he buried the dead near his farmhouse. No graves have since been identified and the location of the burials remains a mystery.

3.4. T. Couzens' *Battles of South Africa*

Tim Couzens visited and describes several of South African battles and battlefields in his book, *Battles of South Africa* (Couzens 2004). Although Couzens unambiguously states that this book is not intended to be comprehensive, nor an "expert military analysis of warfare in South Africa" (Couzens 2004: 7), he provides a fascinating view on the domain of battles and associated battlefields within the South African context.

Couzens illustrates the lead-up to the Battle of Blaauwberg briefly indicating that Janssens spent the night of 7 January 1806 at Rietvlei (Couzens 2004: 42). Then he appears to contradict himself by subsequently declaring that in the late afternoon of 7 January, Janssens had already departed when several British ships bombarded Rietvlei. Janssens had then taken up a position at Blaauwbergsvlei on the plain east of Kleinberg (Couzens 2004: 43).

According to Couzens (2004: 44), Janssens extended his force, straddling the wagon road leading to Cape Town, to 1600 metres, while Baird divided his force into two brigades. The two brigades marched side-by-side over the ridge and descended to the plain. Couzens (2004: 44) continues by stating that the battle started when the grenadiers of the 24th were sent to dislodge the Batavian forces on Kleinberg. Further, the Second Brigade extended its line to face the whole of the Batavian line and pushed the First Brigade into reserve.

In his brief description of the battle events, Couzens (2004: 44) describes the distance between the initial artillery positions of both sides as being 1800 paces apart. The Waldeck Regiment, however, collapsed when a few cannon balls landed amongst them, with the French Marines and the Hottentot Light Infantry standing firm. Shortly after, the 22nd Regiment also retreated upon which Janssens consequently ordered a general retreat (Couzens 2004: 45).

Couzens' description of the battle needs to be viewed in the light of the intended purpose of producing the account. The intention was not to give a military analysis of the battle, but rather to provide a brief informative picture of one of the many battles in South Africa. Couzens further provides distances for several aspects on the battlefield. It is not clear how these distances have been obtained, or how they have been calculated, but there is a possibility he calculated them from visiting the battlefield and by making assumptions about battle positions. Without the archaeological evidence, these calculations or distances cannot be verified.

Couzens also relates that the British brigades marched side-by-side over the small ridge; while Krynauw (1999) says the First Brigade marched to the west, and the Second Brigade to the east of the small hill. The historical maps of the battle,[5] depicting the advances made by the British, also show the First Brigade to the west and the Second Brigade to the east of the small hill. Despite Couzens' inaccuracies about the battle, his version still contains valuable information that provides the reader with a comprehensive idea of the battle and is suitable as an informative guide to the public.

3.5. W. Steenkamp's *Assegais, Drums and Dragoons – a military & social history of the Cape*

Willem Steenkamp (2012) provides a comprehensive account of the military and social history of the Cape in his book, *Assegais, Drums and Dragoons*. The book does not aim to be "a military history textbook" but rather "readable for both the military specialist and anybody else". Steenkamp presents a wide-ranging explanation of the relevant situation in

[5] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

the Cape, as well as the rationale behind political and military decisions taken, and analyses the 1806 Battle of Blaauwberg.

Steenkamp (2012: 232) alludes to General Janssens' preparedness for the British invasion by commenting that with the British fleet in Table Bay, "his carefully calculated defence plan kicked in without delay." In commandeering the troops and preparing for the imminent invasion, Janssens was in fact well prepared. He was, however, hampered by British delaying tactics and could not commit to a specific area to set up his defence (Steenkamp 2012: 233) since the British attempted false landings in various locations.

In his description of the men Janssens had at his disposal, together with the artillery and ammunition, Steenkamp (2012: 234) states that the Javanese Artillery were armed with light bronze swivel cannons, called lantakas that were hastily mounted on big-wheeled field carriages. These cannons were not on the Batavian inventory and according to Steenkamp where they came from were long forgotten. Besides these cannons, Janssens had two howitzers, six 6-pounders, two 3-pounders and six 1-pounder field cannons. This gave him an advantage over the British as they only had two howitzers and six 6-pounder field cannons.

The British continued the landing of the troops in Melkbosstrand on 7 January, while Janssens advanced to the Blaauwberg from Rietvlei, where they spent the night (Steenkamp 2012: 244). Once again, Steenkamp alludes to Janssens' preparedness for battle in that he advanced in an extended line, a battle formation, instead of the usual column formation. Janssens and his men spent the night before the battle at Justinus Keer's farm, Blaauwbergsvlei, where it was decided to attack the following morning.

The morning of 8 January 1806 saw a full-scale battle fought in the European style on the African continent south of the Sahara (Steenkamp 2012: 248). Before Janssens could advance early in the morning, he was notified that the British forces were already well on their way. Janssens, therefore, had to set his force into the battle formation by stretching them out to create the impression they covered the entire British front. Steenkamp (2012: 249) describes how the Batavian defensive line was positioned between Justinus Keers's

farmyard and Kleinberg. Two artillery field pieces were deployed to the lower slopes of Kleinberg with burgher dragoons occupying the small hill.

Describing the British advance, Steenkamp (2012: 252) states that the Second Brigade arrived at the crest of the hill, from where they perceived the enemy drawn up on the other side. The Second Brigade advanced in line and in file from the heads of the companies, as allowed by the terrain. Steenkamp (2012: 251) further describes the nature of the landscape through the account of Major John Graham (Atkinson 1940: 75): “it was impossible to give an idea of the difficulty of the march on the ground over which they had to go, the great irregularity of the surface, the deepest sand he has ever seen and covered with almost impenetrable brushwood”.

As the Second Brigade advanced, Janssens' men had still not fired a shot from their smoothbore muskets as the distance was too great, but Steenkamp (2012: 254) writes “at 228 metres the Batavians fired a hopelessly premature volley (supposedly because of a misunderstood order) and another at about 137 metres. But soon the Highlanders were within effective range, and clouds of white gun smoke bloomed out in front of the Batavian line as its soldiers started firing”. At 60 metres, the Highlanders were ordered to fix bayonets and advanced at a steady pace under heavy fire of round shot, grape and musketry (Steenkamp 2012: 255).

Steenkamp (2012) mentions that the Batavian forces fired a volley of musket balls at a premature distance of 228 metres. This is incorrect as Janssens related that the British Second Brigade fired a volley at too great a distance with no effect. Janssens also states that his orders were accurately conveyed as if on the parade ground, which contradicts Steenkamp's comment about an apparent misunderstood order. Further, Janssens asserts that he waited to give the order for his men to fire until the British were close enough, which would consequently have a murderous effect. Unfortunately, however, the Waldeck Regiment retreated in great confusion, distracting him and possibly he never gave that order.

Steenkamp, as a military historian, argues that the Second Brigade advanced in line and file format according to the ground. This comment is significant in the context of the battle, as the deep sand, the thickness of the shrubs or vegetation most probably had an influence on the format of the British advance. Lastly, Steenkamp comments that the Javanese Artillery was additionally armed with light bronze swivel cannons, called lantakas that were hastily mounted on big-wheeled field carriages. He continues that there was no evidence to substantiate this claim, but that besides these cannons, Janssens had two howitzers, six 6-pounders, two 3-pounders and six 1-pounder field cannons. This puts the total number of cannons at Janssens' disposal, the 16 on Janssens register plus the number of lantakas. Van Oordt (2016: 48) argues the number of cannons being 16, while on the lantakas he further explains that after the battle Mrs Marie Koopmans de Wet apparently requested the commanding officer at the Castle for her four lantakas to be returned. According to Van Oordt, this could have contributed to the confusion about the lantakas.

Steenkamp's (2012) account of the battle focuses not only on the events during the battle but covers the complete invasion and British campaign. It provides a wealth of information that is valuable. Steenkamp's (2012) version is authoritative and contributes to the promotion of this significant historical event.

3.6. M.R.D. Anderson's *Blueberg – Britain takes the Cape*

Mark Robert Dunbar Anderson (2008) provides an elaborate account of the 1806 Battle of Blaauwberg in his book, *Blueberg – Britain takes the Cape*. A major shortcoming in his account is that he provides no references and therefore renders his account solely a story rather than a history (Anderson 2008: 9). From Anderson’s acknowledgements, one can gather that extensive research was conducted to produce this account, but while there is valid criticism, the inaccuracies that occur make it of little value.

On 6 January 1806 Janssens' army arrived at Rietvlei but had to move slightly inland to escape artillery fire from the British fleet. The army spent the whole of the next day at Rietvlei (Anderson 2008: 150). In the camp at Rietvlei, Janssens informed his staff that they would march early in the morning of 8 January to contest the landing and occupy the crest at

Blaauwberg Hill, and the high-lying area towards the east that would give them a height advantage (Anderson 2008: 151). Early in the morning of 8 January, Janssens' men marched from Rietvlei towards Blaauwberg Hill but with the bombardment of Rietvlei continuing, Janssens decided to take up a position behind Blaauwberg Hill.

Anderson (2008: 157) recounts that “in the first warmth of the morning”, the Dutch arrived at Justinus Keer’s farmhouse at Blaauwbergsvlei, and while the troops relaxed around the spring, Janssens finalised his plans for setting up the defensive line. Janssens realised that he would not reach the crest of Blaauwberg Hill as the British were already approaching. The Batavian line was spread out over the plain from Kleinberg in a long double line of men. The British rose at three o'clock in the morning and were ready by a quarter to six, moving out in two columns. Before they reached the crest of the high-lying area east of Blaauwberg Hill, Baird received news that the Batavian forces were taking up positions on the plains below (Anderson 2008: 165). Baird immediately formed two separate columns, with the First Brigade on the left and the Second Brigade on the right, against Blaauwberg Hill.

Baird observed the Batavian long double-ranked line, with most of the hundreds of cavalry below the slopes of Kleinberg. He gave immediate orders to bring the howitzers into action (Anderson 2008: 165). While the howitzer fire from the British continued to aim at the centre of the Batavian line, the Batavian cannon, high on the slopes of Kleinberg, fired at the British (Anderson 2008: 166).

A glaring inaccuracy in Anderson's account is about the advance of the Batavian forces to Blaauwbergsvlei. Anderson writes that Janssens and his men marched on the morning of the battle from Rietvlei to Justinus Keer's farmhouse. This is in stark contrast to Janssens' report in which he states that they had already arrived at Justinus Keer's farmhouse on 7 January. A further inaccuracy, which again undermines the credibility of Anderson's version of the battle, is the map produced by William Smuts. While the map is a clear visual depiction, it contains several conspicuous errors. Firstly, the Second Brigade is erroneously referred to as the First Brigade, while the British (English) Brigade is named the Second Brigade; the numbers of the brigades therefore need to be switched around for clarity. The map also contains numbers depicting specific battle events in sequence as they occurred. It states that

the British 24th Regiment moved forward and took Kleinberg and two cannons, while the 71st Regiment also moved forward and took the two cannons held by the Javanese Foot Artillery. This brings the total number of cannons lost by the Batavians to four, according to Anderson. This was never the case as the British captured only one cannon (Van Oordt 2016: 48).

As a source or reference work, the Anderson's version cannot be regarded as reliable since he references none of his work. The style of writing is that of fiction and the work, while entertaining, is not relevant for academic research.

3.7. N. von der Heyde's *Field guide to the battlefields of South Africa*

In her book, *Field guide to the battlefields of South Africa*, Nicki von der Heyde (2013) briefly describes the context, action and aftermath of the battle, while a chronology of all the battles in South Africa shows the Battle of Blaauwberg to be the second colonial battle fought in this area after the 1795 Battle of Muizenberg.

The account of the battle provided by Von der Heyde (2013: 331) is not intended to be comprehensive and only provides the broad sequence of events. Von der Heyde (2013: 332) writes that Baird chose the route inland of Blaauwberg Hill rather than the sandy track between the hill and the sea. This is also where the main route north from Cape Town was situated. Baird divided his forces into two brigades with the Second Brigade to the left, presumably the east, and the 24th, 59th and 83rd Regiments to the right, or the west.

According to Von der Heyde (2013: 332), General Janssens spent the night at Rietvlei and marched his men north to take up a position on the flat plain east of Blaauwberg Hill. Rietvlei is situated around nine km from the plain east of Blaauwberg Hill. Von der Heyde further states that the battle began at five o'clock in the morning on 8 January 1806. This appears to be highly unlikely as the marching of 2000 men and positioning of the artillery on either side of the Batavian line must have taken a considerable amount of time and contradicts what Janssens recalls in his report (VC80[6]).

[6] VC80. Verbatim Copies. Western Cape Provincial Archives and Records Services. General Janssens report to Schimmelpenninck on the 1806 Battle of Blaauwberg, compiled 27 January 1806.

As a general work that summarises battles in South Africa, this book is acceptable. However, as a reference book for research, it is inadequate.

3.8. J.D. Grainger's *British campaigns in the South Atlantic*

In his book, of the same title, John D. Grainger (2015) covers "the British campaigns in South Africa and South America" and provides valuable insight into the campaigns. Grainger further describes the attempt by Britain to control the Cape as unnecessary, and argues that under continued Dutch control the history of South Africa would have taken a different course.

From a military point of view, Grainger (2015) illustrates the rationale in keeping the Batavian forces in suspense as to where the landing was to take place. This prevented General Janssens from preparing his defence of the Cape well in advance. Janssens marched out of Cape Town on the afternoon of 7 January 1806 with the main Batavian force and camped at Rietvlei (Grainger 2015: 22). On the morning of 8 January, he marched again at three o'clock in the morning, to catch the British forces still in a state of confusion, only to apprehend that the British forces had occupied Blaauwberg Hill the previous day and were advancing towards him. Grainger states that Janssens was too late for the surprise he intended, creating the impression that he was ill-prepared.

Grainger (2015: 23) further states that General Baird had sensibly let the Batavians do most of the marching, as the battle took place close to the British camp. Further, it is asserted (Grainger 2015: 24) that Major Graham of the British light troops had to race a group of Batavian jaegers for possession of a hill to the right of the battlefield. This hill on the west of the battlefield is known as Kleinberg, and it is where a skirmish occurred between the 24th Regiment and the Batavian burghers.

Grainger (2015: 25) makes several statements about the military decisions taken during the battle that require discussion. He suggests that although the British were victorious, the British commanders displayed such incompetence as deserved to be punished by more than a few casualties. Grainger lists the following mistakes:

- Advancing without proper supplies;
- Dividing the army;
- Separating the brigades;
- Firing the volley too soon;
- Failing to secure the flanks;
- Beginning the bayonet charge from too great a distance, causing the men to be out of breath;
- A disorganised formation; and
- Allowing the Batavian forces to retreat unmolested.

Grainger (2015: 26) describes a further mistake by Baird in that he ignored the main body of the Batavian force as he marched towards Cape Town, after he had requested more men at the outset of the campaign because he was convinced Janssens had more troops at his disposal. If Baird was convinced that Janssens had men at his disposal, similar in number to the British forces, as he stated in his despatches to Lord Castlereagh (Hook 1832; Theal 1899), he may well have been trapped between the fortifications of Cape Town and Janssens' troops. According to Grainger, this was a potentially dangerous mistake on Baird's part.

3.9. Conclusion

The various secondary sources available that depict the 1806 Battle of Blaauwberg share a similar interpretation of the battle events. There are, however, several mistakes evident in the secondary sources. These mistakes or irregularities have been highlighted, and include aspects such as the place where the Batavian forces spent the night prior to the battle and the setup of the British two brigades.

For the public, or as tourism guides, these versions provide valuable insight into the 1806 Battle of Blaauwberg, and other battles in South Africa, but must also be read with caution as they contain inaccuracies. Erasmus's, Krynauw's and Steenkamp's versions contain detailed references of primary sources and include a valuable analysis of the events that go beyond merely informing about the events. As historical sources, they contribute

significantly to our understanding, not only of the battle, but also to all the other aspects surrounding the battle.

CHAPTER 4. EYEWITNESS ACCOUNTS AND MAPS OF THE BATTLE

The main sources of information pertinent to this dissertation are the identified archaeological material or physical remains of the battle but the eyewitness accounts and maps produced at the time of the battle also provide valuable information. Not all the accounts provide a comprehensive picture of the battle, but they contain specific aspects relevant to this research.

4.1. Eyewitness accounts of the battle

The personal account of the battle by General Jan Willem Janssens, the commander of the Batavian forces, proved a most valuable source of information (Janssens 1806; Theal 1908; Couzens 2004; Krynauw 1999). Similarly, the personal report on the battle by General David Baird, commander of the British forces, in the form of despatches to his superior, Lord Castlereagh, gives insight into the events. Baird shared the planning and administration leading up to the battle, the strategies used, equipment and men at his disposal. Further, descriptions by the Reverend Henry Martyn, Lieutenant Robert Campbell, Brigadier General Ronald Craufurd Ferguson, Major John Graham and Ensign Thomas Lucas are invaluable, while General Wilson's account, even though he did not partake in the battle, adds to our comprehension of the battle.

The following eight primary sources or eyewitness accounts were used to investigate the 1806 Battle of Blaauwberg:

- General David Baird's despatches to Lord Castlereagh (Hook 1832; Theal 1899);
- Captain Ronald Campbell's journal (Cannon 1848);
- Brigadier General Ronald Craufurd Ferguson's letter to General Baird (Cannon 1852);
- Captain John Graham's letter to Thomas Graham (Atkinson 1940);
- General Jan Willem Janssens' report to Schimmelpenninck;
- Thomas Lucas' letter to Joshua Fennel (Lucas 1806);
- Reverend Henry Martyn's diary (Smith 1892); and
- Lieutenant Colonel Robert Thomas Wilson's biography (Theal 1899).

These sources focus on a variety of topics and while they do not all deal with pertinent issues related to the focus of the research, they contain relevant information that can be used. In the following discussion only the aspects pertinent to the research were considered.

4.1.1. General David Baird's despatches to Lord Castlereagh

General David Baird was born in the town of New Byth in Scotland in 1756 and joined the military at the age of 15 years. In 1779 he visited the Cape of Good Hope for the first time en route to India where he was wounded and captured during combat. After four years as a prisoner of war, he was released after a peace accord was signed. During the next couple of years, he was promoted to Lieutenant Colonel on his return to India when war broke out again in 1790. Baird was involved in several battles in which he played a leading role, until he went back to England in 1797. During the first British occupation of the Cape of Good Hope from 1795 to 1803, Governor Macartney asked Baird, on his way back to England, to remain in Cape Town to assist with the training of troops. During this time, Baird became well acquainted with the defence system of Cape Town, the topography and the coastline, using this to his advantage during the 1806 conquest of the Cape of Good Hope (Krynauw 1999).

According to Baird's despatches to Lord Castlereagh, he formed two brigades, the First Brigade towards the west and the Second Brigade towards the east. The army was accompanied by two howitzers and six light field pieces and they moved towards the road leading to Cape Town. His troops dislodge the enemy's light troops, and when they ascended the summit of Blaauwberg Hill, Baird discovered that Janssens had drawn his main body of troops into two lines and was advancing to anticipate the British approach. According to Baird, the enemy's force comprised about 5000 men of which the greater portion was cavalry, with 23 cannons yoked to horses (Hook 1832: 112; Theal 1899: 271).

Baird immediately summed up Janssens' tactics and counteracted by dividing the British army into two brigades. According to Baird, Janssens had positioned the defensive line in such a manner to reserve their right flank. Baird's reaction was to send the Second Brigade down the main route, while the First Brigade took the defile of the mountains (Hook 1832: 112; Theal 1899: 272).

The Second Brigade advanced steadily, but under constant and heavy cannon fire by the Batavian artillery. Round shot, grapeshot and musketry were used to bombard the Second Brigade. Baird mentioned the high number of Batavian soldiers that maintained their position obstinately under British fire; only once the Second Brigade charged did the enemy retreat (Hook 1832: 113; Theal 1899: 272). The First Brigade was excluded from the main battle action because of their position on the battlefield. The 24th Regiment's flank companies took part in the action by dislodging the horse and riflemen on the heights of Kleinberg (Hook 1832: 113; Theal 1899: 272).

Baird conveyed the hardship his men endured during the battle. He described the environment as “deep, heavy and dry sand, covered with shrubs, scarcely pervious by light bodies of infantry; and above all, the total privation of water under the effect of a burning sun that nearly exhausted our gallant fellows in the moment of victory; and with the greatest difficulty were we able to reach Rietvlei” (Hook 1832: 113; Theal 1899: 272). This description of the battlefield by Baird was significant within the context of the battle.

Baird's account of the battle provides valuable information crucial to the research, but several aspects require discussion. Firstly, Baird stated that, as they reached the summit of the hill, they observed that the Batavian forces were drawn up in two lines, about 5000 men, the majority being cavalry, with 23 pieces of cannon. From Janssens' records (VC80), we established that the Batavian forces comprised a mere 2000 men, inclusive of drivers and assistants. So why did Baird overestimate the number of Batavian forces on the battlefield? Was this done to elevate the achievement of his campaign or could the set-up of the Batavian line have caused Baird's miscalculation? Janssens' infantry was drawn in two files and the men were spread to cover the full extent of the British front. Further, Janssens ordered his line to rotate one eighth to create the impression that they covered the entire British front (VC80: 25). While both reports concur about the two lines, it is not clear why Baird estimated the Batavian forces at 5000 men. One explanation could be that by the time Baird compiled his despatch to Lord Castlereagh on 12 January 1806, he knew the exact numbers of the Batavian troops that took part in the battle, and those that Janssens left under the command of Lieutenant Colonel von Prophalow. Janssens left behind in Cape

Town a force of more than 1200 men, comprising burgher cavalry, artillery, and men in hospital. It is possible that Baird combined the number of men left in Cape Town with the men on the battlefield to arrive at an estimated number of 5000 men.

Secondly, Van Oordt (2016: 48) argues that the number of artillery pieces Janssens had at his disposal during the battle was only 16 in total. Baird, however, mentioned that the Batavian forces had 23 pieces of cannon, while Janssens stated that they had two howitzers, six 6-pounders, two 3-pounders, and six 1-pounders, making 16 in total. Van Oordt (2016: 48) further argues that after the Cape's capitulation, Baird had access to the Castle's records, which stated that the Cape had access to 23 pieces of cannon, which could explain the number Baird mentioned in his despatch. Not all these cannons were however employed on the battlefield.

Thirdly, Baird further stated that the Batavian forces held their positions obstinately under British fire, only to retreat once the Second Brigade charged. This contrasts with Janssens' report in which he stated that the Waldeck Regiment showed signs of discomfort when the first British shells exploded amongst them and then retreated in great confusion and fled disgracefully (VC80). Janssens created the impression that the Waldeck Regiment retreated before the general charge by the British Second Brigade when the first couple of British shells exploded amongst their right flank. Once again, this might be a matter of bias in the reporting of General Baird to elevate the fighting endeavours of his forces. From a Batavian point of view, it was fatal that the Waldeck Regiment retreated as early as they did. The repercussions of the collapse of the Waldeck Regiment were substantial in the progress of the battle.

4.1.2. Captain Ronald Campbell's journal

Captain Ronald Campbell, of the 72nd Regiment, provided an alternative perspective on the battle in his journal, as contained in the historical records of the 72nd Regiment. Campbell briefly mentioned the excessive suffering the soldiers endured through the march and battle. He compared the heat to as intense as he had ever felt in India. He continued that

despite the suffering, the grenadiers still requested the pipers to play the regimental quickstep, astounding the 59th Regiment, which was close behind them (Cannon 1848: 40).

The historical records of the 72nd Regiment compiled by Richard Cannon contain further information on the battle that proved to be supportive in understanding the battle events. Cannon used the original regimental reports, letters and journals in the compilation. On the morning of 6 January, the 71st, 72nd and 93rd Regiments were ordered to effect a landing in Melkbosstrand, and soon afterwards, they had to chase away some Dutch sharpshooters, killing and wounding 13 of the enemy. Early on the morning of 7 January, the 72nd Regiment advanced with one 6-pounder cannon to surprise the enemy encamped at a small village. The Dutch, however, made a hasty retreat, after which the regiment returned to their base (Cannon 1848: 38).

On the morning of the battle, the troops scaled the summit of the hills; the Batavian army was already formed with 23 cannons. The grenadiers of the 24th Regiment immediately set off to drive the Dutch mounted riflemen and jaegers from the heights on the right flank. The Second Brigade advanced to engage the opposing army, which opened fire with 19 cannons. At about 500 yards (457 metres) the Dutch fired grapeshot, while at about 250 yards (228 metres), the enemy fired with muskets along the whole front. However, the enemy could not aim accurately as the brigade advanced too rapidly. At 150 yards (137 metres), the Second Brigade returned the musket fire, while advancing and firing from 60 yards (55 metres) the order to charge was given by Brigadier General Ferguson. The general charge by the Highlanders caused the Dutch to flee, with the Highlanders in pursuit. The Dutch artillery on their right flank continually fired with two cannons but were soon driven off by Captain Campbell and the grenadiers. After pursuing the Dutch for five kilometres, the 72nd Regiment was ordered to a halt (Cannon 1848: 39–40).

Cannon (1848) offers valuable information about the battle event, and although not everything appears to be primary sources, it provides logical insight into the events. The account of Captain Ronald Campbell, as a primary source, also highlights aspects for deliberation significant to the research. Similarly to the despatch of General Baird, Captain Ronald Campbell described the deep impassable sand and heat as major obstacles to the

progress and advance of the British. The men suffered severely, while Captain John Graham observes in his letter that men died from lack of water, added to the other adversities they endured. This together with the fact that the men might have been unfit or in poor health, as Krynauw (1999: 103) suggests, possibly led to the British not pursuing the Batavian forces as they retreated (Atkinson 1940: 76). For the archaeological research, this was significant as it alluded to the possible southern perimeter or extent of the battlefield.

Cannon (1848: 39) provided accounts on what distances muskets were fired. At distances of 500 yards, 250 yards, 150 yards and 60 yards, musket volleys were fired by the opposing armies. Prior to the archaeological investigation, some argued that if these volley patterns were clear in the archaeological record, it would be possible to delineate the battlefield according to these measurements.

Once again, as argued before, there is a disparity in the number of Batavian artillery pieces mentioned by Cannon (1848: 39). Unfortunately, inaccuracies or discrepancies place the account in doubt. However, the account provided much insight into the development and course of the battle.

4.1.3. Brigadier General Ronald Craufurd Ferguson's letter to General Baird

On 19 January 1806, Brigadier General Ferguson addressed a letter to General Baird, adding to our understanding of the battle events (Cannon 1852: 60). This letter is contained in the compilation of historical records of the 71st Regiment by Richard Cannon. In the letter, Brigadier General Ferguson requested the allowance granted for the capture of two enemy cannons to be shared amongst the 71st, 72nd and 93rd Regiments.

Cannon (1852: 58) briefly described the battle, as compiled from the regimental records of the 71st Regiment. On the morning of 8 January 1806, the British divided into two columns and moved up the heights of Blaauwberg Hill. From the heights, the enemy was seen to be drawn up in two lines, totalling about 5000 men, a large proportion of which was cavalry, with 23 cannons.

The Dutch stood firm until the charge of Second Brigade started, at which point they were completely routed. Three cannons were captured, and the Dutch lost 700 men, while the 71st had only Colonel Robert Campbell, two sergeants, and 64 regular soldiers wounded, and five men killed (Cannon 1852: 58).

Brigadier General Ferguson's letter to Baird contains another contentious fact about the Batavian artillery pieces (Cannon 1852: 60). Ferguson claimed that two Batavian cannons were captured, but Van Oordt's (2016: 48) explanation for the inaccuracies suffices. In his study and clarification, Van Oordt makes use of a range of calculations to determine the number of Batavian cannons present on the battlefield. Van Oordt calculates this through comparing the number of men per artillery unit to the number of men Janssens accounted for in his report. In a crosscheck, Van Oordt calculates the number of horses required by an artillery unit, and comparing it to the number Janssens accounted for in his report. Van Oordt, therefore, concludes that the Batavian forces only had 16 cannons on the battlefield and that 15 of them were accounted for after the battle, therefore determining that only one cannon was captured by the British (Van Oordt 2016: 48). However, the account of the battle, provided by Cannon (1852), provided valuable insight into the battle. Used with similar documents, a better understanding of the battle was obtained.

4.1.4. Captain John Graham's letter to Thomas Graham

Captain John Graham's letter to Thomas Graham (Atkinson 1940) is another detailed and invaluable eyewitness account of the battle. Graham wrote that on the morning of 8 January 1806 he was ordered to form the advance guard to wait on General Janssens. He described the difficult terrain they had to traverse as deep sand, covered with impenetrable brushwood. Once they ascended the hill that ran perpendicular to the beach, they could observe the enemy three kilometres ahead. The enemy drew their troops in battle order as the British appeared over the crest (Atkinson 1940: 75).

The grenadiers of the 24th Regiment were sent to occupy the low hill to the right when they saw 20 to 30 Dutch mounted riflemen gallop to the hill. This was a cause for alert and Captain Graham stated that he ordered the light company of the 24th Regiment to assist

(Atkinson 1940: 75). The Dutch sharpshooters were bringing down the 24th Grenadiers with every shot. The Dutch subsequently also opened fire with their cannon on the 24th Regiment which convinced Graham that he needed to capture these cannons. When a soldier shot one of the Dutch from the 24th Light Company, the Dutch retreated hastily, while only the Dutch cannons still fired during the retreat. Graham stated that the British soldiers were too tired to pursue the retreating Dutch (Atkinson 1940: 76). During the action on Kleinberg, Graham noted that the British line across the plain was advancing at an astonishing pace towards the enemy who opened fire with all their cannons. The British artillery returned the compliment with a round of fire (Atkinson 1940: 75).

Graham concluded his reference to the battle events by stressing the severe conditions the men had to endure and that several men dropped dead from thirst. Was it not for the later access to two small ponds the consequences could have been terrible (Atkinson 1940: 76).

Graham's account of the battle provided a detailed description of the action during the battle, which particularly interested this researcher. The following aspects of Graham's account are mentioned: firstly, the deep sand and impenetrable brushwood already discussed; secondly, the action or skirmish on Kleinberg; thirdly, the artillery fire from both the British and the Batavian; and fourthly, the Dutch sharpshooters and British losses during the skirmish on Kleinberg.

Graham noted that the Batavian artillery positioned one cannon near Kleinberg, but from his description, it is not clear if the cannon was positioned on the hill or on a high-lying area close to the hill (Atkinson 1940: 76). Graham further noticed, from his vantage point near Kleinberg, the advancing British Second Brigade and the artillery fire from both sides. Graham's assessment of the pace at which the Second Brigade advanced is contradictory to the impression created of the difficult conditions the men had to endure while marching. I found his comments on the artillery fire from both sides of great interest. Military doctrine of the time directed the field cannons to advance near the foot regiments. The general opinion was that the proximity of the return fire of the 6-pounder cannons boosted the morale of the troops when subjected to an artillery bombardment, and they had to stand their ground in close formation (Caruana 1977: 7; Dawson *et al*. 2007: 203). In the absence

of horses drawing the cannon carriages through the thick sand, the marines volunteered to pull the cannons. This would severely hamper the speed at which the cannons could advance across the battlefield. The advance of the British artillery is fully discussed in CHAPTER 6.

The comment by Graham that the Dutch sharpshooters brought down British men with every shot fired (Atkinson 1940: 78) is an issue Krynauw (1999: 154) also addresses, as he questions the accuracy of the official casualty report. Baird (Hook 1832: 113; Theal 1899: 272) stated that the British losses were 189 wounded, eight missing and only 15 dead. Krynauw argues that these numbers could have been tampered with, to once again, promote Baird's achievements of this campaign. This, however, remains a topic for discussion, which could be clarified once the graves have been identified and excavated. Unfortunately, the objective for this research project and mandate for the permit conditions did not include the identification and excavation of graves.

4.1.5. General Jan Willem Janssens' report to Schimmelpenninck

General Jan Willem Janssens' report on the battle events to Schimmelpenninck, completed on 27 January 1806, is significant and provides an abundance of information. Although the document housed at the Western Cape Provincial Archives and Record Services, Cape Town, is a verbatim copy of the original document[7], it is accepted as being accurate and true to the original. It must, however, be acknowledged that since handwritten copies of the originals have been made, errors could have been made that will be unknown without consulting the original documents.

Janssens (VC80: 17–18) reported that on the morning of 7 January 1806 the army advanced from Rietvlei with the left flank in the dunes, the centre to the right of the dunes in the plains and the right wing further into the plain. Janssens specifically mentioned the various positions of the different regiments as they advanced with two companies of the Hottentot Light Infantry to the left, the 9th Regiment Jaegers, burgher cavalry and a party of light dragoons. The 22nd Infantry Regiment was deployed in the centre with the 5th Regiment of

[7] Copied by G.M. Theal from original document – Nationaal Archief, Den Haag, Collectie 036 Janssens, 1700-1906, nummer toegang 2.21.092, inventaris nummer 70.

Waldeck, the French Marines and the artillery, while a squadron of light dragoons, the horse artillery, the Jaegers of Waldeck and the burgher cavalry covered the right wing.

Janssens (VC80: 19) further reported that at nine o'clock the army halted their approach and Janssens with some staff continued forward to scout the position of the enemy forces. At three o'clock the afternoon the Batavian forces advanced further, to reach Blaauwbergsvlei where they took in position and made preparations.

Janssens (VC80: 20) described the risks of attacking the British at their camp in Melkbosstrand, as it would have exposed his men to the cannon fire from the ships. He would then need to approach from behind Blaauwberg Hill, but that the British could then also decline the battle by marching south, leaving Cape Town unprotected. Janssens was further convinced that victory was impossible and, therefore, arranged to withdraw inland after the initial conflict.

At three o'clock on the morning of 8 January, Janssens (VC80: 24) reported that the soldiers, from all over Europe, the East and even Mozambican slaves, were ready to proceed to the position from where he observed the enemy the previous day. The officers were to take the men to these positions to familiarise them with the situation. However, before this plan could be effected, reports were received that the British forces were already approaching. Janssens, however, did not alter his plans (VC80: 25).

From four o'clock, the enemy was seen appearing in line with the Batavian right flank and Janssens ordered his defensive line to rotate by one-eighth of a circle to create the impression that his forces covered the whole of the enemy's line. The positioning of the different regiments according to Janssens (VC80: 25–26) was, from the right wing:

- The greatest part of the squadron of light dragoons;
- The horse artillery;
- The 9th Regiment Jaegers;
- Two howitzers and three 6-pounders;
- The 22nd Regiment of Infantry;
- The French Marines;

- The 5th Regiment of Waldeck;
- The two Hottentot Light Infantry companies;
- Three 6-pounders and six 1-pounders with the Javanese Artillery;
- The Waldeck Jaegers;
- The burgher cavalry of Captains Linde and Human;
- The division of burghers of Captain Wium; and
- In the dunes, between the beach and the hill, about 50 men, of which 20 jaegers and 30 of the Hottentot Light Infantry.

The cannons were occasionally moved to positions where they were required and Captains Linde and Human also moved to the heights with a small contingent of burghers. The defensive line was positioned properly but not too close, as it would not have matched the extended line of the enemy (VC80: 27). The cavalry was arranged in single file with an extended space between the individuals. The infantry was positioned in two files with a space between the men, and an extended space between the different regiments. Janssens (VC80: 27) argued, that due to the obvious lack of the British cavalry, the two files and extended space between men and corps could be used.

The British attacked their left wing at five o'clock by passing through the dunes towards the hill. Janssens was surprised at the number of horses the British had at their disposal, and that they had six field cannons. The enemy's howitzers opened fire first, and the aim was directed at the centre of the Batavian line, where General Janssens was positioned (VC80: 27). Janssens' orders were conveyed speedily and correctly as if on parade. However, when the first howitzer shell landed in the right wing of the Waldeck Regiment, it caused more confusion than he had expected. The cannon fire from both sides continued and the Batavian cannon fire influenced the British movement as it caused them to alter their movements (VC80: 29–30).

The Second Brigade advanced in front of the Batavian infantry and discharged a round of muskets at too great a distance to have an effect. Janssens waited to give the order for his men to fire until the British were close enough, which would have a murderous effect, but unfortunately, the Waldeck Regiment retreated in great confusion. Janssens had to turn his

attention to persuading them not to leave, but to no avail, as they did not simply retreat but disgracefully fled (VC80: 32).

On his return, Janssens (VC80: 33) noticed that the left flank of the 22nd Regiment was also retreating, but on hearing his orders, they stood fast again. The French Marines were now also forced to retreat, with great loss, as they were abandoned on both their left and right flanks. Janssens also noticed that the grenadiers and jaegers were falling back, while the dragoons formed together, and on receiving his order, they too retreated. Janssens ordered Adjutant General Rancke and later Colonel Henry to re-assemble the soldiers at Rietvlei.

According to Janssens (VC80: 34–35), the artillery performed bravely, and only lost one cannon under the command of Lieutenant Dibbetz. After the general retreat, Janssens heard continuous cannon fire from the right flank, and on investigation, found the horse artillery, under command of Lieutenant Pelegrini, still bombarding the British with well-directed shots. Janssens ordered him to retreat, while covering the general retreat, and promoted him to captain for his bravery (VC80: 35).

Janssens and his men assembled at Rietvlei and, after dispatching the Waldeck Regiment, marched inland. According to Janssens, this was done for the good of the town, as he would be in a better position to negotiate the capitulation (VC80: 36).

Janssens (VC80) stated that the British artillery aimed their initial fire at the centre of the Batavian line, which caused much confusion amongst the 5th Regiment of Waldeck. The first cannon shot landed on the right flank of the Waldeck Regiment, which was a vital piece of information for the archaeological research. Since General Baird had two 5½ inch howitzers (Van Oordt 2016: 49) at his disposal, specifically designed to fire, explosive or incendiary shell (Caruana 1997: 7; Muller 1779: 65), it is most likely that the initial shot aimed at the centre of the Batavian line was howitzer hollow shot. Some researchers argued that if the British howitzer shells can be identified within a specific area, the battlefield could then be easily delineated. This is further clarified and discussed in CHAPTER 6.

The Waldeck Regiment's retreat left the Batavian line in disarray and reduced the resistance Janssens provided. This also created another aspect the archaeological research attempted

to clarify. Janssens set up his defence with the German mercenaries (or Waldeck Regiment) in the centre, as they were assumed to be well trained and brave. The cavalry and a mobile artillery unit were positioned on the right flank to provide additional power once the space between the two forces had been reduced. However, since a gap was created in the centre of the Batavian line there is a possibility that the British forces targeted the weakness in the defensive line, and veered away from the force on the right flank of the Batavian line. Some have argued that this was one of the aspects the archaeological record could identify. The British movement across the battlefield is discussed in CHAPTER 6.

Janssens further commented that the Second Brigade discharged their muskets at too great a distance, not affecting the Batavian forces. This would mean that should several shots be fired aimed at a distant target, the musket balls would come to land in a pattern similar to the firing line. It was argued that if this assumption was correct, the archaeology could identify this line. The analysis of musket balls was identified as an important aspect in the research and is discussed in CHAPTER 6.

According to Janssens (VC80), the different regiments, such as the 22nd Infantry Regiment and French Marines, resisted courageously, but from Janssens' description, it is assumed that the fighting did not occur along a single extended line. From an archaeological point of view, this aspect of the battle was also investigated and provided clarity on the course of the battle.

Janssens' account of the battle contains much detail invaluable to the archaeological research. The details Janssens shared were exactly the detailed information that was required to investigate archaeologically. Even though the objective of this research was not to be specific about every aspect of the battle, future analysis of the archaeological record in association with the historical record could clarify much finer details of the battle.

4.1.6. Thomas Lucas' letter to Joshua Fennel

Sometime in 1983, Joe Walsh, from Cahir, County Tipperary, Ireland, rescued a letter addressed to Joshua Fennel from Thomas Lucas, from a dustbin heading for an industrial shredder (Joe Walsh, pers. comm. 15 February 2017). Lucas' (1806) letter provides a

personalised eyewitness account of the battle and shares valuable information about the event. Lucas dated the letter 17 March 1806, and included his address at the time as Cape of Good Hope, Simon's Town Headquarters. Lucas (1806) states that on 8 January they came into view of Janssens' army, but that the action only started at 12 o'clock. The action continued throughout the day and was a bloody affair as the enemy were scattered in all directions with 10, 15 and 20 bodies lying in a heap at their feet.

Lucas (1806) stated that they lost only a few men even though the enemy's artillery continually fired upon them. The Batavian forces had 25 cannons and some howitzers, but these had little impact as they advanced so swiftly. Further, Lucas noted that, besides the grenadiers of the 24th Regiment, only the Second Brigade engaged with the enemy. He described his position to the right flank of the 72nd Grenadiers and mentioned that it was a wonderful sight to witness while the bagpipes played during the charge.

Joe Walsh's efforts to save and subsequently conserve another eyewitness account of a significant event in history are noteworthy and needs to be applauded. The letter contains inaccuracies, but still includes valuable information about the battle action itself. The morale and experience that these men had to endure provide insight into the human aspects of the battle that cannot be ignored. The exaggeration or bias is clear from a young man penning his own personal experiences which clearly left a huge impression on him. As Lucas only wrote down his experiences over two months after the battle, the possibly inaccurate time of the battle sequence can be understood. Further, Lucas was part of the infantry and was therefore probably unaware of the exact number of cannons the Batavian forces had at their disposal.

4.1.7. Reverend Henry Martyn's diary

The Reverend Henry Martyn's diary provides another eyewitness account of, not the battle itself, but of the events and circumstances immediately after the battle. Martyn's diary provides much insight into specific details of the battle (Smith 1892).

Martyn stated that soon after seven o'clock in the morning of 8 January 1806 tremendous artillery fire was heard coming from behind the mountain. Martyn was still on board the ship

at this point, and only came ashore later. Martyn saw smoke from the small hill to the right of Blaauwberg Hill, with troops running down towards the other side. Soon, there was a long-drawn fire of musketry that made everyone on the ship shudder. As soon as the noise stopped, Martyn saw the enemy retreating along the low ground towards Cape Town (Smith 1892: 121–122).

Martyn joined a party under Major Lumsden to march the nine kilometres through soft, burning sand, to the battlefield. As they ascended the heights, they were attracted to the small hill to the right where they observed some English soldiers. There they found wounded men from the 24th Grenadiers, but these had already received treatment, while three men were found to be dead. Captain Foster was found dead on top of the small hill, with more dead soldiers near him. From here, Martyn and his party descended to the plain where the two armies fought (Smith 1892: 123).

Martyn came across a British marine who recounted the battle, and later they met soldiers and an officer of the 59th Regiment who declared that they had escaped unhurt. Towards the rear of the enemy's army, were a couple of farmhouses that were converted into a field hospital and contained over 200 wounded soldiers, mostly English, with some enemy soldiers among them (Smith 1892: 123).

Martyn described the scenes at the field hospital as “horrid” with the wounded covered in blood and gore. Martyn walked into the field of battle with a surgeon, and on the right flank where the enemy engaged with the Second Brigade, saw many knapsacks lying around and concluded that the dead and wounded could have lain strewn in great numbers. Martyn had a conversation with a wounded Frenchman and a couple of other wounded men, all of whom begged for water (Smith 1892: 123–124).

Martyn's diary is an invaluable source of historical information, not just on the battle itself; Martyn also shared his views about the trip to Cape Town and the time after the battle. Relevant aspects in his account of the battle were described in much detail. Marius Breytenbach (2016) used Martyn's description of the farmhouses to gain insight into the set-

up of Justinus Keer's farmhouse and the field hospital, for his study on the field hospital used during the aftermath of the battle.

Martyn's description of the events on Kleinberg further contributed to our understanding of the battle. While his view might have been obscured by both Blaauwberg Hill and Kleinberg, his experience of the battlefield was useful to this research.

4.1.8. Lieutenant Colonel Robert Thomas Wilson's biography

Lieutenant-Colonel Robert Thomas Wilson's biography (Theal 1899) provides further insight into the battle, even though Wilson did not experience the battle himself, because he was sent to Saldanha Bay. Wilson briefly recounted that the 59th Regiment was ordered to take the route via the sand hills, while the main body ascended the heights. The British line descended the heights without hesitation and when they were within reach, General Ferguson received the order to lead the charge with the Second Brigade, with the enemy giving way. The British took several cannons and left about 500 enemy soldiers dead or wounded. Only the 71st and 72nd Regiments encountered resistance but still drove off the enemy with no interruptions (Theal 1899: 332).

Wilson further noted that several sailors died of exhaustion and thirst while dragging the cannons through the deep sand in the heat of the sun. Fortunately, a small dam was located and General Baird himself supervised the distribution of the water (Theal 1899: 332).

Wilson's account highlights specific aspects of the battle that provided valuable information to the research. Even though he did not experience the battle first-hand, he was able to get important information from his fellow officers. Wilson's biography is a valuable source as it depicts many aspects of the battle, even if it refers to the battle itself only briefly. His account of the battle confirms the general course of the battle, while it highlights the tough conditions the men endured.

4.2. Maps

Several maps were drawn to record and depict the 1806 Battle of Blaauwberg and were commissioned for various purposes. These maps were drawn from memory or copied and

altered to depict various aspects of the battle. There are several similarities in the maps and some discrepancies, which complicate the analysis of the maps. Similarities in the maps include the distribution of the different regiments as they were lined up before the battle, but the discrepancies emphasise, just as the similarities, important aspects of the historical landscape and the battle events that require discussion. Discrepancies in the maps might not be major differences, but enough to cloud the accuracies of different maps. Comparisons between maps were made to identify the differences to first conduct a reconstruction of the historical landscape and secondly to clarify locational issues of the events.

GIS software was used to import digital copies of the historical maps, and by making use of identifiable geographic and specific features, these maps were geo-referenced. Besides historical maps depicting the battle itself, other historical maps of the specific and larger area were used to reconstruct the historical landscape. Early aerial photographs further provided insight into the environmental conditions and layout as far back as 1938.

The following 5 historical maps were used to reconstruct the historical landscape:

- General Janssens' map of 1806[8] (NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13);
- Henry Smart's map of 2 February 1809[9] (Smart 1809);
- Captain Read's map of 1806[10] (M1/2064 - 2071);
- Captains Read and Long of the Royal Staff Corps' map of 24 September 1806[11] (M3/21);
- Royal Engineers' map of 1819/1820[12] (Castle Military Museum)

[8] Nationaal Archief, Den Haag. 1806. *J.W. Janssens - Kaarten en Tekeningen*. Nummer toegang 4.JSF. Inventarisnummer 13

[9] Smart, H. February 1809. *Sketch of the country between Cape Town and Blue Berg shewing the point of debarkation of the British army under the Command of Major General Sir David Baird K.C. on the 6th and their subsequent movements in the action of 8th January 1806 against the Batavian Troops under the Command of the Governor Lieut. General Janssens*. Library of Parliament, Cape Town 18447(1)

[10] Read, C. 1806. *Map of 1806 Battle of Blaauwberg*. M1/2064-2071. Western Cape Provincial Archives and Records Services, Cape Town

[11] Read, C. & Long, H. 1806. *Map of 1806 Battle of Blaauwberg*. M3/21. Western Cape Provincial Archives and Records Services, Cape Town

[12] Royal Engineers. 1819/1820. *Map of 1806 Battle of Blaauwberg*. Castle Military Museum, Cape Town

Important aspects that were interpreted on the maps included the location of the roads or routes, the locations of specific geographic features and the relative positions of the different forces and regiments as depicted on the maps. These aspects were crucial in determining the accuracy of the maps, but also to orientate the maps and retrieve specific information.

4.2.1. General Janssens' map of 1806

The General Janssens map[13] of the 1806 Battle of Blaauwberg (included in ANNEXURE 1) provides valuable information about the battle that warrants analysis, as a variety of aspects must be considered. Janssens' map shows a sequence of events at various times during the British campaign. It shows the campsite used by the British after debarkation, the approach routes towards the battlefield and the setup before the battle and the British approach towards the Batavian defensive line are indicated.

Besides the troop movement, this map also shows the geographic features relevant to the battle. These geographic features were used during the analysis of the maps. The analysis focused on determining the accuracy of the map, drawing comparisons between maps and evaluating the maps against the available historical documentation. The noticeable geographic features requiring discussion include the positions of Blaauwberg Hill, Kleinberg, the settlement of Jan Mostert's farm, Blaauwbergsvlei farm, and the road network. Also clear on the map is the large dune field between the coastline and Blaauwberg Hill that made passing through with a large army impossible. The main route from Cape Town northwards was therefore situated inland of Blaauwberg Hill. General Baird, from his previous visit to the Cape of Good Hope, would have known about this (Hook 1832; Theal 1899).

[13] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

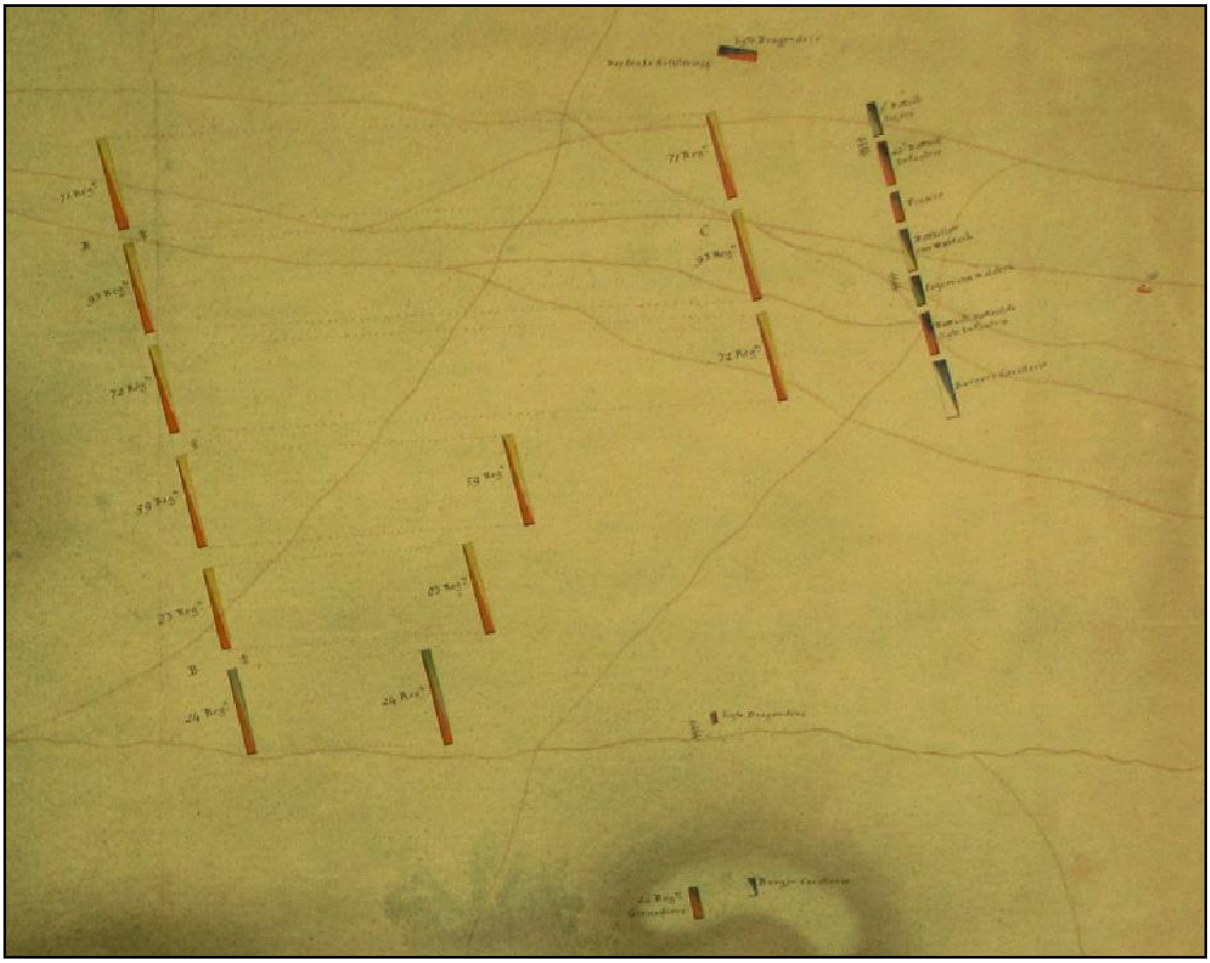


Figure 4. An enlargement of Janssens' map[14]

An enlargement of Janssens' map (Figure 4) shows the British troop positions before the engagement and the Batavian defensive line. The geographic features pictured in the map extract include the hill, routes and the positions of both Jan Mostert's farm and Blaauwbergsvlei. The main north-south route between Cape Town and Jan Mostert's farm splits into multiple routes and rejoins into a single route just before Jan Mostert's farm. This could probably be attributed to the difficult sandy conditions with travellers choosing easier routes to navigate the harsh environment.

According to the map, (Figure 4) the Batavian defensive line was situated well forward of Blaauwbergsvlei farmhouse. The left and right flanks of the Batavian line were reinforced by artillery positioned well in front of the line, strategically placed to cover the east-west routes. Further, two more artillery positions are indicated slightly in front of the Batavian

[14] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

line and situated between the 9th Regiment Jaegers and the 22nd Regiment of Infantry and between the 5th Regiment of Waldeck and the Jaegers of Waldeck. This does not correspond to the verbatim copy of Janssens' report housed at the Western Cape Provincial Archives and Record Service, Cape Town. The document states that the Javanese Artillery was stationed between the Hottentot Light Infantry, to the east, and the Jaegers of Waldeck, to their west (VC80: 26). According to Janssens' map, the Waldeck Regiment and the Jaegers of Waldeck were situated next to each other with the artillery slightly in front and in line with the gap between the regiments. To assess which document, the map or the verbatim copy is correct required access to the original documents. However, for this research, it suffices to acknowledge the discrepancy that exists.

The Batavian defensive line does not line up perpendicular to the network of roads to defend the route, as one would expect. This might correspond to the slight adjustment in the line that Janssens ordered during their positioning. Janssens ordered his defensive line to rotate by one-eighth of a circle to create the impression that his forces covered the whole of the enemy's line (VC80: 26). Therefore, the Batavian line matched the approach line of the British Second Brigade and placed their line almost parallel to the British line.

4.2.2. Henry Smart's map of 2 February 1809

The map drawn by Captain Henry Smart of the Royal Engineers dated 2 February 1809[15] (Figure 5) depicts the coastline of Table Bay and the adjacent interior. The map shows a time sequence of the British debarkation and campsite in Melkbosstrand, their positioning before the battle and their subsequent approach towards the Batavian defensive line. The map further portrays the position of the Batavian defensive line and the placement of the various Batavian regiments.

[15] Smart, H. February 1809. *Sketch of the country between Cape Town and Blue Berg shewing the point of debarkation of the British army under the Command of Major General Sir David Baird K.C. on the 6th and their subsequent movements in the action of 8th January 1806 against the Batavian Troops under the Command of the Governor Lieut. General Janssens*. Library of Parliament, Cape Town 18447(1)

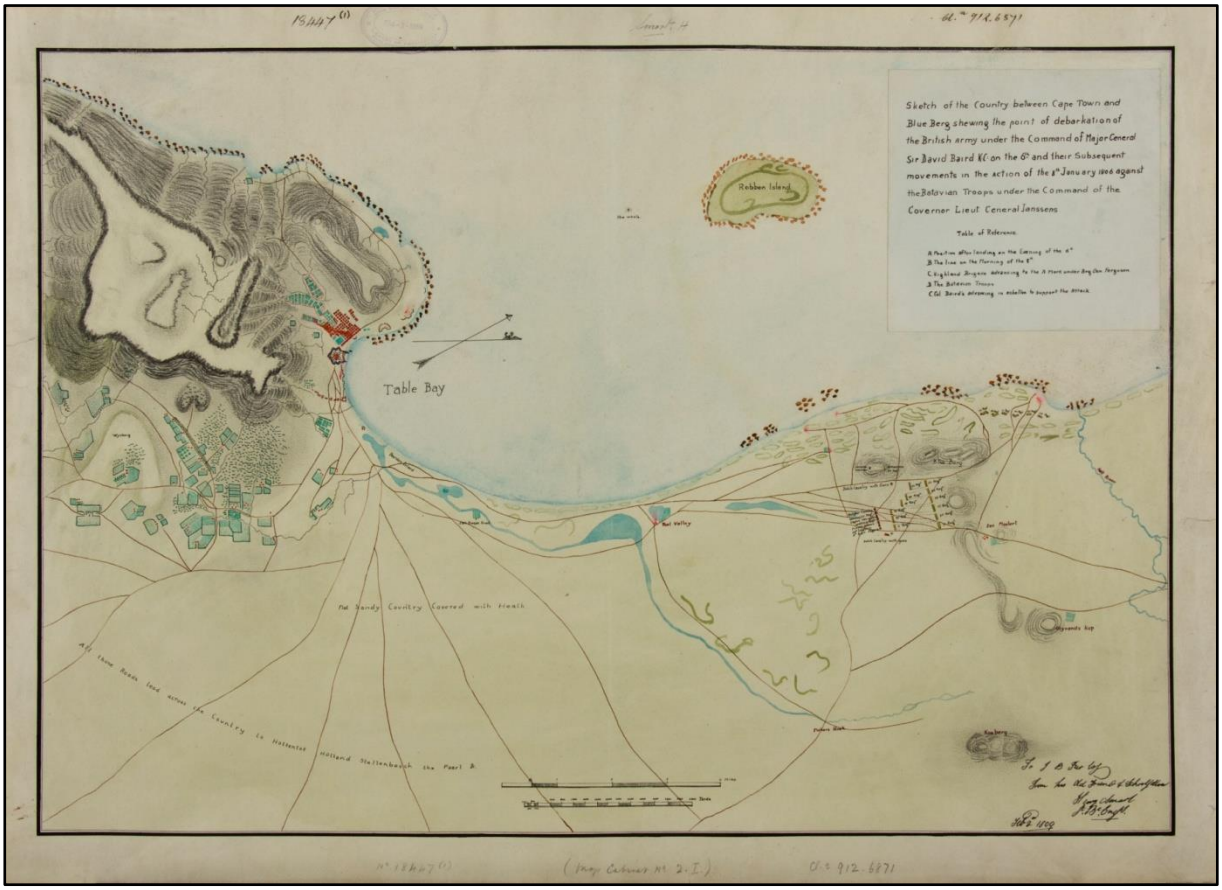


Figure 5. Sketch of the country between Cape Town and Blue Berg showing the point of debarkation of the British army under the command of Major-General Sir David Baird K.C. on 6 January and their subsequent movements in the action of 8 January 1806 against the Batavian troops under the command of Governor Lieutenant-General Janssens (Smart 1806)

By enlarging a specific portion of Figure 5, the battlefield becomes visible (Figure 6) and illustrates several aspects about the battle and the environment. Firstly, the troop positions of the Batavian defensive line are distinguishable towards the south straddling the main north-south routes. Secondly, the British forces are indicated in two positions, representing their initial positions as they arrived on the battlefield and subsequently their positions as they approached the Batavian defensive line.

Figure 6. An enlargement of Figure 5 (Smart 1806)

An objective of this study was to reconstruct the historical environment, therefore, the geographic features, the routes and settlements or farmhouses were of specific interest. Most of the routes have since 1806 fell into disuse and have consequently become overgrown and are not easily visible. The geographic features and settlements or farmhouses are still present today and are constant reference points. The accuracy of this map is, however, a contentious topic and needs to be verified against modern maps. The historical maps were drawn with a specific purpose in mind, therefore, the scale, orientation and positions of various map elements might not be accurate.

To analyse the historical maps, the relative positions of the hills, the farmhouses and the roads need to be compared and discussed. The map drawn by Captain Henry Smart (Figure 6) appears to be relatively accurate about the positioning of the hills and the houses of Jan Mostert's farm, although the position of the current Blaauwberg farm, (Jan Mostert's farm) is slightly further north than the position showed on the map. The map, however, fails to indicate the position of Blaauwbergsvlei and the houses of Justinus Keer. It shows a green patch near the location of Blaauwbergsvlei, which could represent the farm. The orientation

of Blaauwberg Hill and Kleinberg is relatively accurate, although Blaauwberg Hill is indicated as apparently three separate hills, while it is, in fact, one hill.

The Smart map shows one main route from north to south divided into a series of five tracks. These tracks split and rejoin, ultimately, to represent the same north-south route. This could be attributed to the sandy landscape that hampered travelling by horse and cart or wagon so much that once a track became worn, a new track would be developed. Several east-west connecting routes are also indicated on the map, of which one leads through the neck between Blaauwberg Hill and Kleinberg and the others south of Kleinberg and towards the north of Blaauwberg Hill, respectively.

The positions of the different regiments and troops depicted on the map are of interest as these concur with the positioning and order of troops as Janssens described in his report on the battle (VC80). Several aspects of the troop positions warrant discussion. Firstly, the British Second Brigade followed the longer route to reach the battlefield, but their approach towards the Batavian defensive line was made easier due to the multiple routes. The British First Brigade, however, did not have the advantage of any routes for their approach, and this could therefore possibly explain the Second Brigade's first engagement with the enemy. The thick sand dunes they had to cross hampered the First Brigade's approach to Kleinberg. Secondly, the Batavian defensive line straddles the main north-south route towards Cape Town, while the position of the Batavian artillery on the right flank is also indicated. Thirdly, the Batavian forces on Kleinberg are indicated, strategically positioned to guard the routes from the west, to protect the Batavian left flank.

The positions of the Batavian artillery on the left and right flanks respectively are also of interest. Both the artillery positions were forward of the defensive line, with the artillery near Kleinberg far in front of the defensive line. These artillery positions strategically cover the approach routes towards Cape Town and the east-west route. The proximity of the artillery positions to the routes also shows the importance of the network of routes for their approach to the battlefield and their later departure or retreat from the battlefield. Unfortunately, the British artillery is not indicated on the map.

Comparing the Janssens' map[16] to the Smart map, it is obvious to note the difference in scale between the two maps. The Smart map portrays the complete coastal area from beyond Melkbosstrand in the north, to further than Cape Town in the south, while Janssens' map only shows Melkbosstrand and the area surrounding the battlefield. The latter map is more focused and only includes the features and events surrounding the 1806 Battle of Blaauwberg.

4.2.3. Captain Read's map of 1806

Captain Read's map of 1806[17] (M1/2064–2071) is physically a very large map covering various sheets of paper and it is therefore pointless to include the complete image. Figure 7 portrays an extract of the area of interest that covers the battlefield. The Read map (M1/2064–2071) has, similarly to the Smart map (Smart 1806), a small scale and therefore covers a larger area but with little detail. Although geographic features, such as Blaauwberg Hill, Kleinberg, Melkbosstrand, the road network and the farmhouses of Jan Mostert and Blaauwbergsvlei, are clear on the map, the details of the battle event are lacking.

[16] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

[17] Read, C. 1806. *Map of 1806 Battle of Blaauwberg*. M1/2064–2071. Western Cape Provincial Archives and Records Services, Cape Town

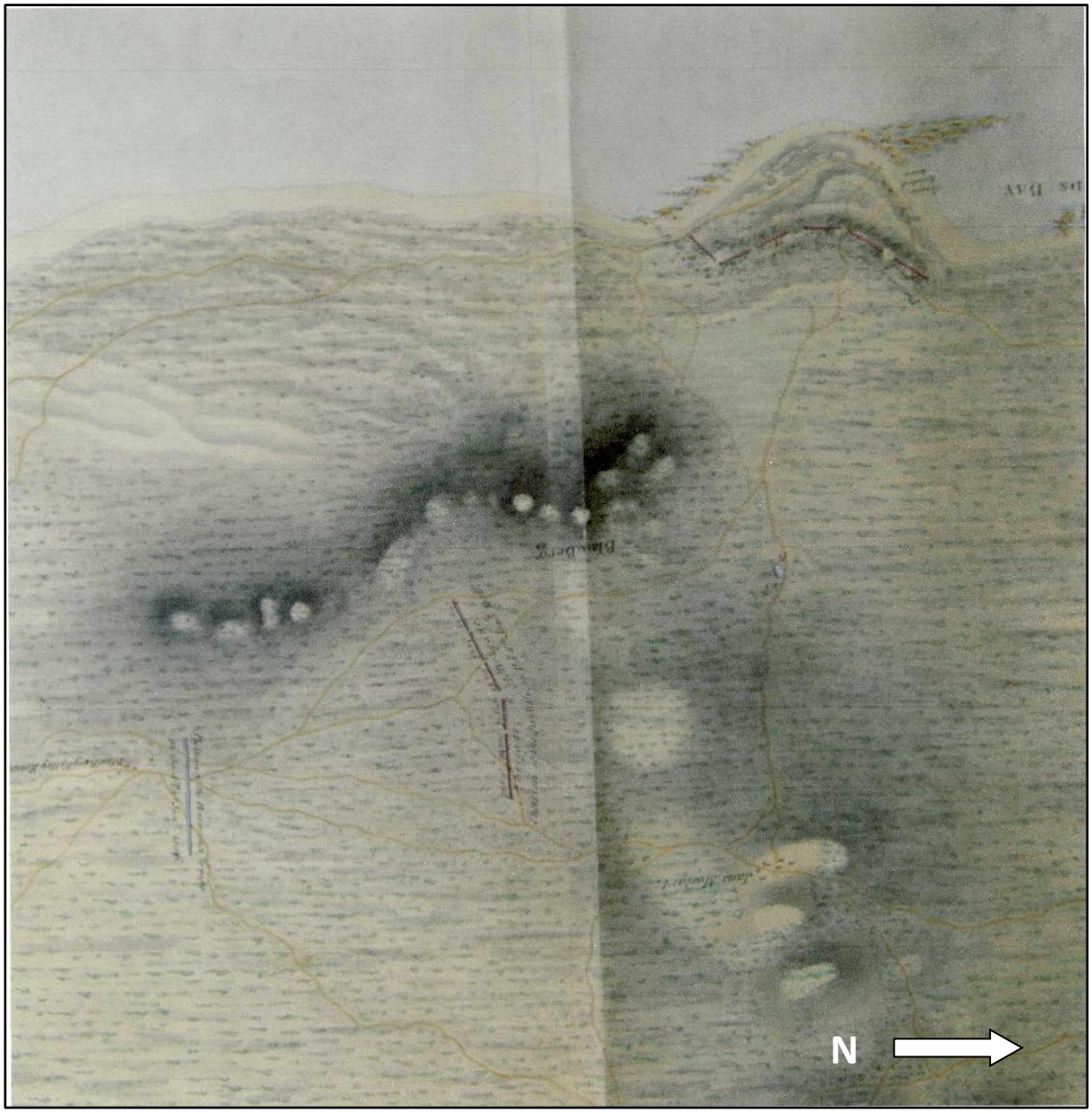


Figure 7. Extract of the Read map of 1806 (M1/2064-2071)

Blaauwberg Hill and Kleinberg appear to be accurately depicted, while the road network and positions of both Jan Mostert's farm and Blaauwbergsvlei appear to be inaccurate. The battlefield associated with the road network, therefore, becomes skewed and positioned incorrectly. Jan Mostert's farm is situated north–north-west of Blaauwbergsvlei, but when orientating the Read map (M1/2064–2071), Jan Mostert's farm is situated towards the north–north-east of Blaauwbergsvlei. This impact on the distances measured between the

actual battlefield and Blaauwberg Hill. This is, however, also the case on both Janssens' map[18] and the Smart map (Smart 1806).

Further, the distances between Blaauwberg Hill and the coastline showed on the Read map (M1/2064–2071) ranges between 1400 metres and 2400 metres, while in reality it ranges between 1900 metres and 2800 metres, averaging a difference of about 400 to 500 metres. Compared to both Janssens' map and the Smart map (Smart 1806), which appear to be much more accurate, the Read map (M1/2064–2071) is inaccurate.

The Read map (M1/2064-2071) indicates the positions of the British campsite in Melkbosstrand and the positions of both the British First and Second Brigade before the battle. It also shows the different routes the British brigades took to reach the battlefield. These routes are indicated by means of a dotted line and show the British First Brigade taking the shorter route close to Blaauwberg Hill, while the British Second Brigade took the longer route further towards Jan Mostert's farm.

The road network shown in the Read map (M1/2064–2071) is, however, different to the Janssens' map and the Smart map (Smart 1806). The main north-south route splits and rejoins similarly to the routes depicted in the other maps, but the pattern differs, also the east-west routes differ drastically from the other maps.

4.2.4. Captains Read and Long's (of the Royal Staff Corps) map of 24 September 1806

The 24 September 1806 map of the 1806 Battle of Blaauwberg (Figure 8) drawn by Captains Read and Long of the Royal Staff Corps (M3/21) depicts various aspects of the battle. Like the Smart map (Smart 1806) and the Read map (M1/2064–2071), the scale is small, and the map depicts the coastline from Melkbosstrand to Cape Town and the adjacent interior. The map also depicts the British campsite in Melkbosstrand and the battle itself. Due to the size of the map, Figure 8 only shows the furthest southern edge of the British campsite in Melkbosstrand up to the northern extent of Cape Town. The map also includes various positions the British regiments occupied during the aftermath of the battle, to represent a

[18] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

full timeline from their debarkation to just before the capitulation of Cape Town. The British advance on the battlefield towards the Batavian defensive line is not shown as in the Janssens' map[19] and the Smart map (Smart 1806). It only illustrates the positions before the engagement.

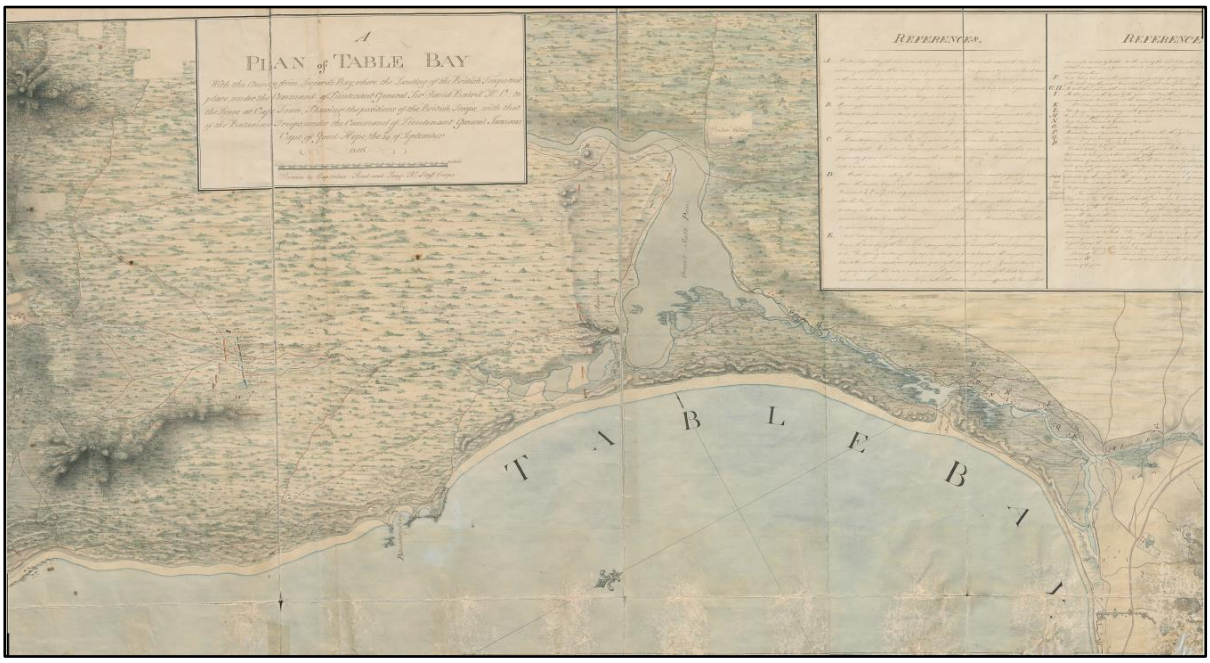


Figure 8. The Captains Read and Long map of 24 September 1806 (M3/21)

An enlargement of the battlefield and adjacent areas as seen in Figure 9 required discussion. Firstly, the positions of both Jan Mostert's farm and Blaauwbergsvlei are like those positions depicted in both Janssens' map and the Smart map (Smart 1806), as they all place Jan Mostert's farm towards the north-northeast of Blaauwbergsvlei. The network of routes across the landscape are further shown in Figure 9 and are like the Read map (M1/2064–2071) but differs from Janssens' map and the Smart map (Smart 1806).

[19] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

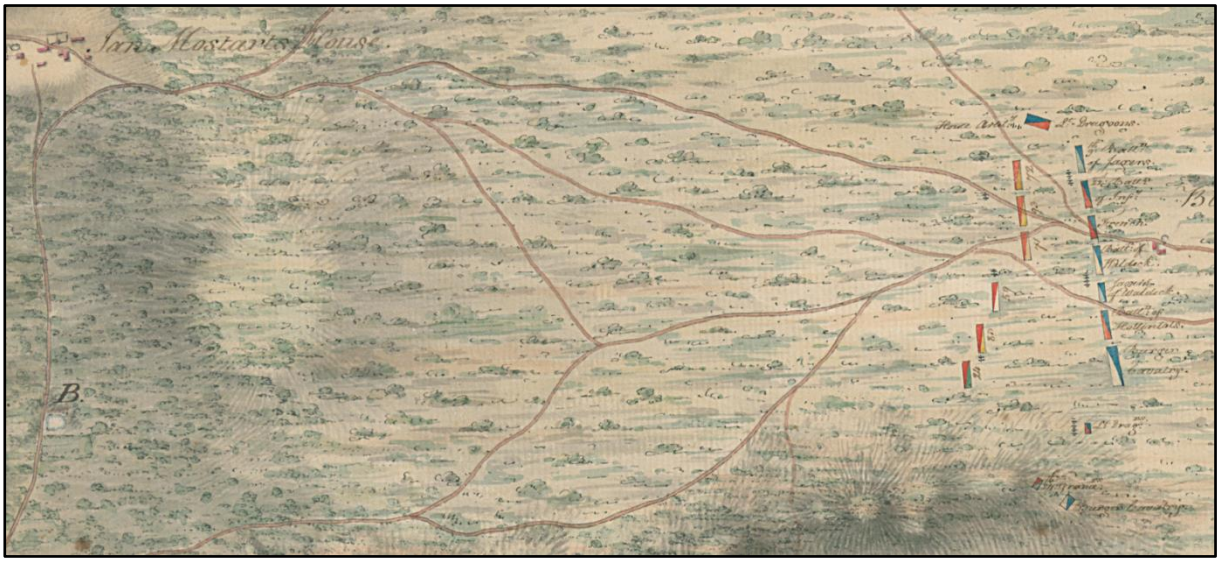


Figure 9. An enlargement of the Captains Read and Long map of 24 September 1806 (M3/21)

An enlargement of the Captains Read and Long map (M3/21) (Figure 10) emphasises the battlefield and engagement between the two armies. Firstly, the positioning of the Batavian troops is in contrast to the verbatim copy of Janssens report (VC80: 26), with the positions of the Hottentot Light Infantry and jaegers of Waldeck being changed over. Secondly, Janssens[20] indicates the Regiment of Waldeck as straddling one of the north–south leading routes, while the map by Captains Read and Long (M3/21) in turn indicates the French Marines as spanning one of the north–south routes. This was problematic as the reconstruction of the historical landscape and subsequent placement of events was reliant on the positioning of the various regiments.

The Batavian artillery positions are indicated on both the flanks, well forward of the line as well as directly in front of the line in the gap between regiments. The map by Captains Read and Long (M3/21) also shows three artillery positions near the British regiments (Figure 10)

[20] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

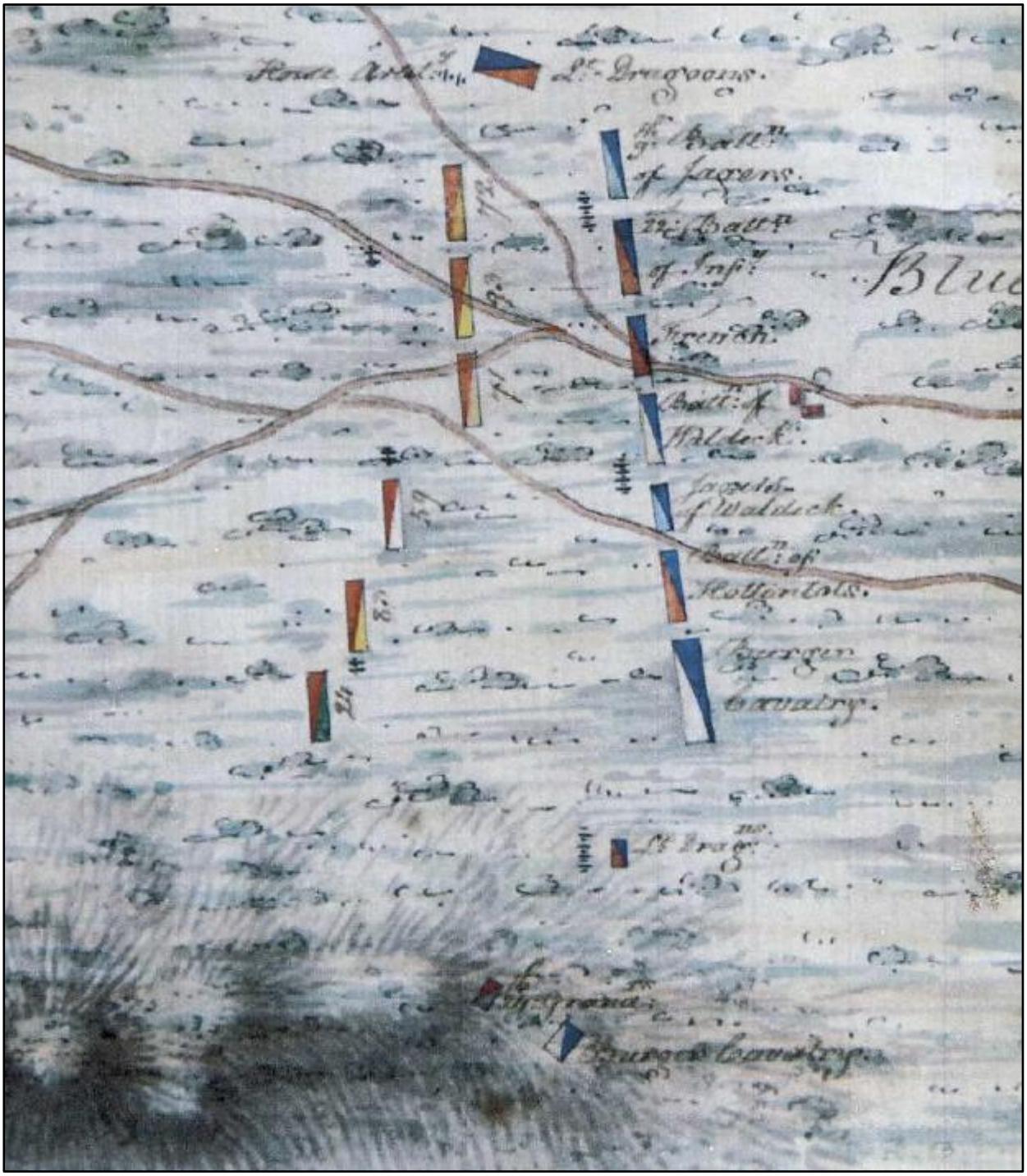


Figure 10. A further enlargement of the map by Captains Read and Long, of 24 September 1806 (M3/21)

The two artillery positions associated with the British First Brigade and only one in association with the British Second Brigade are shown in Figure 10. The light 6-pounder battalion cannon (Figure 20) was the preferred cannon at the time of the 1806 Battle of Blaauwberg and these were normally attached to a battalion of infantry in pairs. The Battalion Artillery marched and fought with their attached infantry and provided close

support during deployment and attack (Caruana 1977: 7; Dawson *et al*. 2007: 203). Unfortunately, horses were unavailable to pull the light 6-pounder cannons and men had to drag the cannons through the thick sand and impenetrable bush. It is of interest that three artillery positions are indicated, possibly representing three pairs of light 6-pounder cannons the British had at their disposal. Further, two pairs are associated with the British First Brigade and only one pair with the British Second Brigade, but the map indicates this pair as trailing the 93rd Regiment of the Second Brigade. This could probably be attributed to the absence of horses drawing the cannons and the thick sand and bush through which the men had to pull the cannons. This artillery could probably not have been able to fire at the opposition, as it would have placed its own men in danger.

4.2.5. Royal Engineers' map of 1819/1820

The Royal Engineers' map of 1819/1820 (Castle Military Museum) (Figure 11) is another version of the 1806 Battle of Blaauwberg produced several years after the battle. This map portrays the coastal area from beyond Melkbosstrand in the north to further than Cape Town in the south, incorporating various geographic features such as Robben Island, Table Mountain and the inland areas next to Table Bay. The Royal Engineer map (Castle Military Museum) indicates a time span for the battle, depicting the British campsite in Melkbosstrand, their positions on the battlefield and subsequent approach before the engagement with the enemy. Due to its small scale and coverage of such a large area, specific details are not included and an enlargement of the map focusing on the battlefield and immediate surrounding areas are represented in Figure 11.

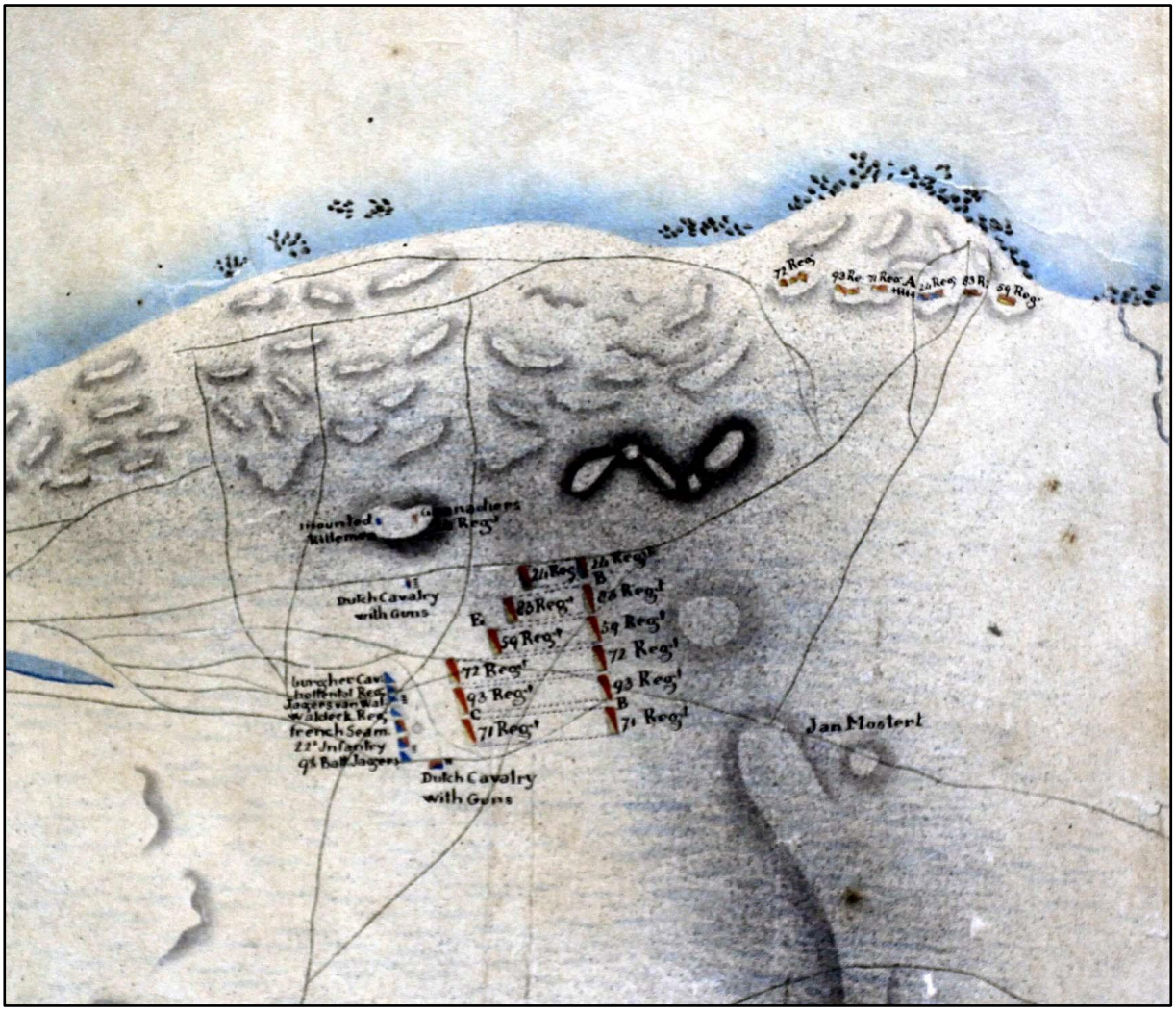


Figure 11. An enlargement of the Royal Engineers' map of 1819/1820 (Castle Military Museum)

The aspects to be discussed for the Royal Engineers' map (Castle Military Museum) are like the previous discussions and relate to the positions of the farmhouses, the network of routes, the positions of the Batavian forces and associated artillery. Firstly, the position of Jan Mostert's farm is also inland, but cannot be oriented in relation to Blaauwbergsvlei, as the latter is not indicated on the map. Secondly, the road network compares favourably to Janssens' map[21], as it indicates the distinct east-west routes and has noticeable similarities in the main north-south routes. However, there is also a resemblance to the Read map (M1/2064–2071) and the map by Captains Read and Long (M3/21), therefore, maybe this map was produced as a copy and hybrid of the other maps.

[21] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

Further, the order and positioning of the Batavian defensive line concurs with the order and positioning portrayed in the other maps, but there is no specific regiment straddling a north-south route. One of the north-south routes is positioned in the opening between the Hottentot Light Infantry and the Jaegers of Waldeck.

The maps produced by Janssens[22] and Smart (Smart 1806) both indicate the Batavian artillery on its left flank, far forward of the artillery on the right flank. The Read map (M1/2064–2071), the Read and Long map (M3/21) and the Royal Engineer map (Castle Military Museum), in contrast, have positioned the artillery on the Batavian left flank in line with the artillery on the Batavian right flank. This posed a challenge for the archaeological research to identify the exact artillery positions.

4.3. Conclusion

The personal or eyewitness accounts and maps available to the research provided diverse views on the battle. Selected opinions and views were obtained and analysed from these accounts to study the battle events. These accounts provided insight into the course and development of the battle and gave me an understanding of both the conditions and experiences of the people involved. Though not all aspects mentioned in these accounts were archaeologically investigated, certain aspects provided enough detail to guide the archaeological research. The subsequent results, therefore, either affirmed or conflicted the personal accounts provided. From an archaeological point of view, these accounts were important to understand an event that occurred over 200 years ago.

After a thorough consultation of both primary and secondary sources, together with a detailed analysis of archaeological projects that focus on battlefields across the world, a clear methodology was designed to approach the archaeological research into the 1806 Battle of Blaauwberg. CHAPTER 5 provides the details about the methodology used during this research and focuses on the reconstruction of the historical landscape, the eventual field surveys and subsequent detailed analysis of the artefacts.

[22] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13

CHAPTER 5. METHODOLOGY

To recognise the unique character of a battlefield the systematic archaeological investigation of sites of armed conflict is required. Ragragio (2005: 104) elaborates that battlefield archaeology methodology is a fascinating arrangement of old and new techniques. Sagona (2015: 36) alludes to the long history of field survey used in archaeology. Similar techniques are of interest in the 1806 Battle of Blaauwberg research. The spatial dimensions of human behaviour are analysed and interpreted through accurate and meticulous surveying and recording techniques. The spatial distribution of the battle remnants was a major focus in the research and in association with the documentary resources and landscape reconstruction, formed the basis for the interpretation and reconstruction of the events.

To accomplish a spatial distribution of battle remnants meticulous archaeological survey was conducted with the assistance of geophysical equipment. Using non-intrusive and non-destructive methods of archaeological investigation is ingrained in the discipline and is increasingly being followed. Remote sensing and the use of geophysical equipment as archaeological tools are becoming more common (Connor & Scott 1998: 76). These tools have become indispensable in the archaeological survey of battlefields. The use of geophysical equipment and technologies has had great success in the identification of the sub-surface archaeological material on several archaeological sites. Archaeological surveys of battlefields have in the past used metal detectors for the identification of artefacts. Metal detectors are relatively cheap, easy to obtain, use, and have proven to be very successful. (Heckman 2005: 2). Magnetometer surveys have proven successful in the identification of sub-surface features and artefacts such as in the Confederate Prisoner-of-War camp in Georgia (Bigman 2015), but ground-truthing (or archaeological testing) is required to substantiate the data collected through magnetometer surveys.

A further example of the successful use of geophysical equipment on battle sites is on the World War I battlefield of Pozières in northern France. To investigate the feasibility of geophysics in locating sub-surface features, a resistivity survey was conducted. Resistivity surveys could be a useful tool to locate buried linear features, while acknowledging that test excavations were still required to determine the extent and nature of the features (Hunter *et*

al. 2014). Further, Michael Pratt has made effective use of remote sensing techniques at the Fallen Timbers battlefield in Ohio. Through metal detecting surveys, numerous battle-related artefacts were identified and retrieved. They also successfully located the battlefield and retrieved enough information to interpret the events (Pratt 2003).

Noguera *et al.* (2012: 853) provide a methodological reflection on the use of metal detectors on camps related to the Second Punic War in north-eastern Spain. Even though alternative methods were also used to identify sites and artefacts within this area, the metal detector surveys were highly effective. They warn of the possible catastrophic results if the metal detector surveys are applied indiscriminately.

Connor and Scott (1998: 76) allude to the fact that metal detecting has become associated with artefact hunters and has made metal detectors synonymous with site looting. They also acknowledge the value of metal detecting on archaeological sites. Metal detectors are inexpensive and effective remote sensing devices that could be valuable in archaeological research if their application is correct. Sivilich and Stone (2009: 102) recognise the worth of metal detecting in its ability to identify ferrous and nonferrous artefacts quickly and therefore speed up the survey of large areas effectively. Don Rickey (1958) was one of the first documented to use metal detectors with great success, to identify the firing lines on the battlefields of Little Bighorn and Big Hole (Sivilich & Stone 2009: 103). Heckman (2005: 2) warns of the flaws in metal detector surveys on battlefields as they typically use sweeps in parallel transects. Depending on the purpose and goal of the survey, the transects were separated by various distances (perhaps three to ten metres). It is very difficult to maintain a uniform coverage throughout a survey block, because the metal detector operator drifts off from the parallel transects. Further, the vegetation also disrupts the possibility of a constant spatial sampling.

The battlefield of the Boyne at Oldbridge was looted by illegal metal detecting in the past, with much of the fine locational detail being lost, making the material worthless for interpretation (Cooney *et al.* 2002: 10). Connor and Scott (1998: 76) also refer to the looting of sites by artefact hunters and argue that this might be the primary reason for the use of

metal detectors being underutilised in archaeological investigations. This approach to metal detecting has given its use in archaeology a bad reputation.

Sharpe (2013: 44) also warns of the dangers of metal detecting on battle sites as it was scorned by archaeologists who associated it with looters. However, the obvious advantages of metal detectors are also identified because soldiers shed metal in the form of buckles, buttons, hooks, ammunition and weaponry. Connor and Scott (1998: 76) reason that the main difference between the looting of sites by metal detector operators and the use of metal detectors as an effective archaeological tool is in the way in which it is used. The method and accuracy used during the retrieval, recording and documentation of the artefact become crucial in the validity of the resulting spatial distribution.

In a comparative study, William Lees evaluated the impact of metal detectors on battlefields. Lees (1996) states he approached the topic knowing that metal detector operators undesirably influenced historical sites. By evaluating two battle sites, the Mine Creek Civil War battlefield in Kansas and the Honey Springs Civil War battlefield in Oklahoma, Lees concludes that on the Mine Creek site, the patterns of identified and retrieved artefacts are misleading. The patterns on land previously detected did not differ from the patterns on land not previously detected. The Honey Springs site showed that the patterning on retrieved artefacts appears to be skewed. According to Lees (2002), this is because metal detector operators focus on so-called hot spots and therefore remove many artefacts from these areas, hence providing a distorted spatial distribution. Finally, Lees (2002: 17) concludes that his results were inconclusive as land previously detected does not necessarily show a difference in the patterns of retrieved artefacts. He further says that his "observations are offered as a precaution, however, and not as a condemnation of the metal detector practice on sites such as battlefields."

Lees (2002: 17) comments that the physical remains provide clues to different aspects of a battle, predominantly bullets and artillery projectiles. He further differentiates between ammunition fired during the battle and those, which may have been dropped, discarded or lost. The unfired ammunition could mark the location of specific soldiers or regiments, while the fired ammunition might identify the location of a fallen soldier during the event.

To advance the research on the 1806 Battle of Blaauwberg, specific areas of research were targeted. The landscape of the early 1800s first needed to be reconstructed thoroughly, to achieve enough accuracy (Foard 2003: 9) to place the historical events within it, before the impact of the landscape on the battle events and the strategic use of the landscape could be investigated and evaluated.

The reconstruction of the historical landscape involved the layering of military and historical maps, using GIS software programmes. Contemporary maps with the overlay of historical maps were used to identify landscape features, main routes and subsidiary routes. Journals, letters and other personal accounts (James 1837: 44; Smith 1892; Theal 1899) provided additional evidence on the landscape supplementary in reconstructing the historical landscape. Documentary research into the military strategy of the time provided insight into the defensive, attack and strategic positioning doctrine. The consideration of weaponry was important to calculate distances, trajectories and ranges to suggest areas that could have been utilised.

Foard (2003: 11) argues that the real test for the reconstruction of the historical landscape is the systematic investigation of the archaeology of the battlefield, particularly the evidence of the distribution of musket shot, grapeshot and round shot from the artillery. During this research, systematic and meticulous metal detector surveys were conducted to identify the archaeological material of the 1806 Battle of Blaauwberg. Documentation and analysis of the artefacts were used to produce maps of most of the battle-related artefacts. Subsequently, the spatial distribution of the artefacts was used to situate the battle and related events within the larger historical landscape, which suggested critical moments or areas within the course of the battle (Foard 2003: 10).

Five main geographic areas within the battlefield landscape were investigated:

- The position of Batavian defensive line;
- The locations of Batavian artillery;
- The locations of British artillery and the routes used for the advance of the British regiments;

- The skirmish on Kleinberg; and
- The location and extent of the main area of engagement.

The strategic use of the historical landscape and the impact the landscape had on the events were concluded once the locational issues of the battle were resolved (Foard 2003: 7). Carman (2005: 220) indicates that locations are not mere points on a map, but are social and cultural sites of meaning. He states that landscapes represent threats or opportunities and it provides for the effective or ineffective use of such areas. Lastly, the use of positions within the historical landscape is strategic and the result of conscious preparation and execution. The advantages gained from the use of specific landscape features and positions were evaluated against the historical and archaeological evidence to understand the events.

5.1. Reconstruction of the historical landscape

The reconstruction of the historical landscape focused on several aspects namely:

- The analysis of historical and contemporary maps;
- The field survey;
- The topographic analysis of the area; and
- The identification of possible historical routes.

General Janssens set up his defensive line straddling the main north-south route joining Jan Mostert's Farm to Blaauwbergsvlei (Anderson 2008; Erasmus 1972; Krynauw 1990; Steenkamp 2005). The north-south spatial distribution and the east-west placement of the different Batavian regiments were investigated through the identification and analysis of the specific battle-related remnants. The locations of the defensive artillery positions forward and towards the flanks of the Batavian line were investigated within the accessible areas of the historical landscape. Ballistic analysis, calculations and trajectories of different projectiles were used to determine the most likely locations for the artillery.

The British heavy artillery positions and the routes used for the advance of the British regiments and field artillery (Hutten 2015) were studied through the analysis of the projectile trajectories. The examination of battle remnants on the slopes of Kleinberg was

used to identify the location and extent of the skirmish on the slopes of Kleinberg. Further, intensive and systematic field surveys of the pre-determined areas, together with ballistic analysis and the spatial distribution of battle-related remnants, were used to scrutinise areas representing the main area of engagement.

5.2. Systematic field survey of the identified areas

Metal detectors have proven their worth on the site of the 1806 Battle of Blaauwberg as such a large number of artefacts would not have been identified without this equipment and their skilled operators. The vast extent of the battlefield makes the use of other geophysical equipment, such as magnetometers, impractical. Initially, the use of a magnetometer was planned for the identification of sub-surface artefacts, but its use was considered as ineffectual. It was found that a layer of ferricrete lies just below the surface, which affected the magnetometer results. However, by using a stringent methodological approach the metal detectors have been remarkably successful.

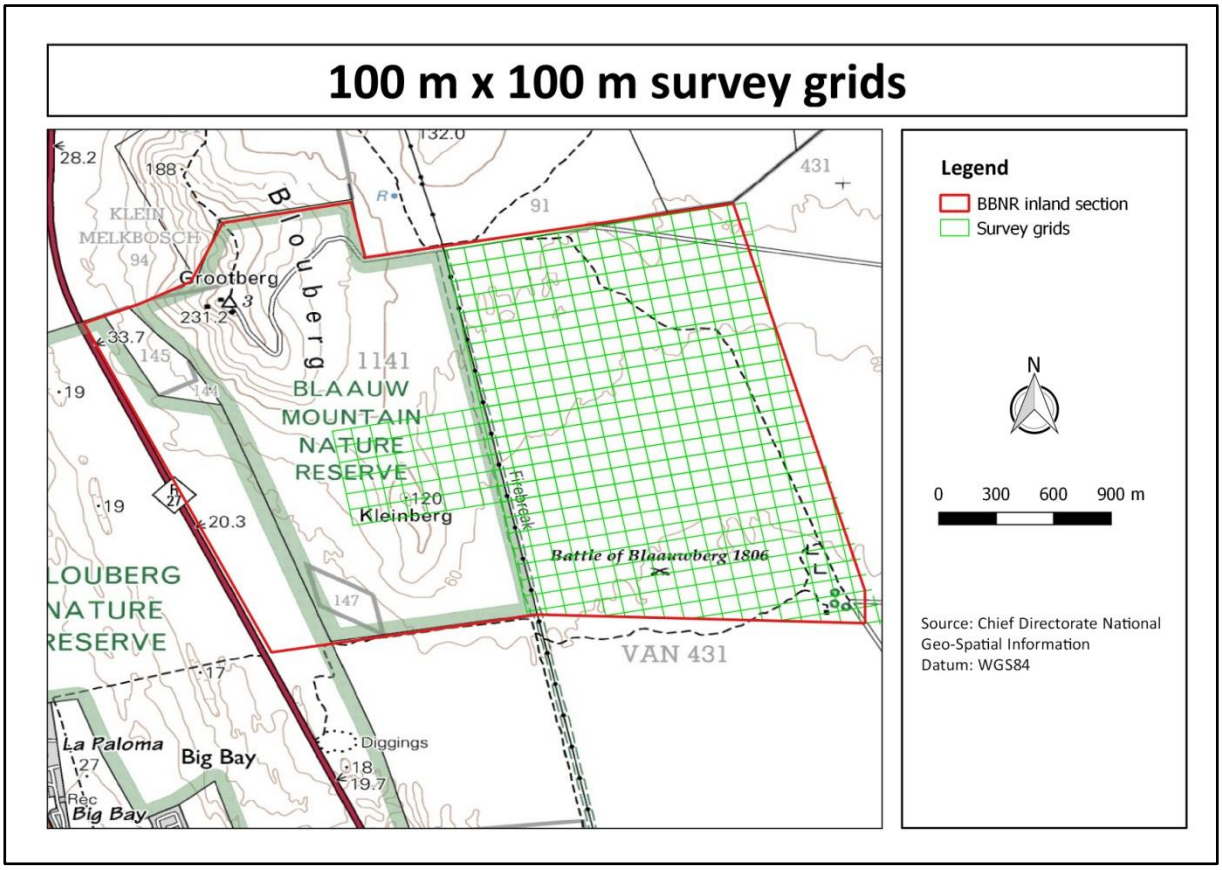


Figure 12. The 100 m x 100 m survey grid established across the study area

The metal detector surveys started within the 96 hectares cleared as part of the ongoing Sand Plain Fynbos restoration project within the BBNR. Access to this area would later become limited since the sensitive indigenous vegetation was in the process of re-establishing. Within a GIS programme, 100 m x 100 m grids (Figure 12) were established to cover the extent of the battlefield. These corner points were marked by the placement of poles. All survey grids were subsequently demarcated with brightly coloured baler twine to provide guidance and assistance to the survey team. Within the 100 m x 100 m grids, the metal detectors surveyed in linear transects as tightly as possible, but not more than two metres apart. Volunteers assisted the metal detector to keep to stringent lines by placing marker poles as navigation beacons. Fortunately, these initial grids were cleared of all vegetation improving visibility and as near as possible to complete coverage of the grid could be obtained. This initial area was strategic during the 1806 Battle of Blaauwberg as it revealed the landscape used by the British forces for their initial artillery fire. It was also within this area that the British forces deployed into line formations to expose their full strength to the Batavian forces.

After the 96 hectares of the Sand Plain Fynbos Restoration Project, surveys started within the rest of the battlefield that has not been cleared of vegetation. Certain areas were naturally open and a similar methodology could be followed as in the cleared areas. Overgrown areas were also encountered that hampered the effectiveness of the surveys and the grids were adapted by subdividing into smaller grids. Even within the smaller areas, the detectors would survey shorter distances, to sustain a comprehensive coverage and accuracy during the surveys.

The group of experienced metal detectors, using their personal machines during the surveys included:

- Alan Wright – Garrett Sea Hunter Mark II metal detector;
- Robert Turvey – Minelab CTX 3030 metal detector;
- Frank Ihle – Garret ACE 350 metal detector;
- Clayton Alison – Garrett Sea Hunter Mark II metal detector;
- Jason Loeve – Minelab Excalibur metal detector;

- Steph Little – Minelab 505 metal detector;
- Gerhard Oosthuizen – Minelab Safari and Minelab Quattro MP metal detectors;
- Heinie Oosthuizen – Fisher F4 metal detector;
- John Gravenor – Minelab 705 metal detector; and
- Lance Turner – Minelab CTX 3030 metal detector.

The process followed during the field survey could be summarised as follows:

- Setting up a survey grid;
- Identification of a survey area;
- Metal detector surveys;
- Excavation and retrieving of finds;
- Documentation of finds;
- Mapping of finds;
- Analysis of finds; and
- Curation of finds.

A group of dedicated excavators and recorders joined the metal detectors during the surveys and comprised:

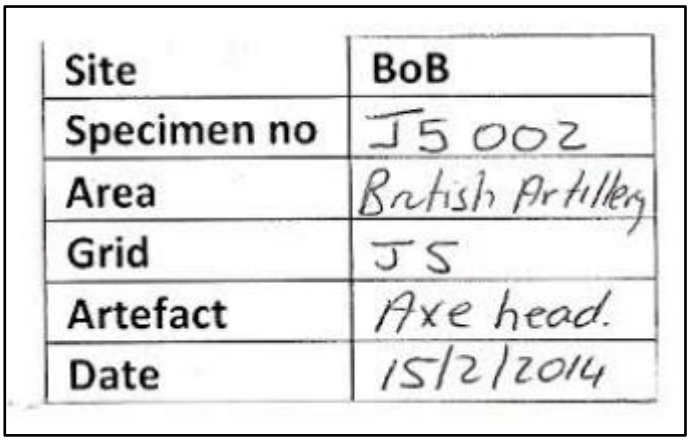
- Louisa Hutten (archaeologist, UCT);
- Ian van Oordt (historian);
- Roy Fuller-Gee (FoBCA);
- Joe Ribaudo (FoBCA);
- Garry Thomson (FoBCA);
- Marius Breytenbach (UNISA & UCT – postgraduate archaeology student);
- Anja Huisman (UNISA – archaeology student);
- Bridget Cohen (UCT – postgraduate archaeology student);
- Tiffany van Zyl (UCT – postgraduate archaeology student);
- Stanley Stanford (volunteer);
- Ryno Hutten (volunteer);

- Francois van Lill (UNISA – postgraduate archaeology student);
- Helene Booyens (volunteer);
- Barend Bierman (UNISA – postgraduate biblical archaeology student);
- Dave Honour (FoBCA);
- Harriet Cliff (archaeologist, City of Cape Town);
- Cade Little (volunteer);
- Ben Marais (UCT & UNISA – postgraduate archaeology student); and
- Jani Louw (UCT – postgraduate archaeology student).

Survey teams, comprising a metal detector and at least one recorder, transected predetermined grids and identified metallic objects. These objects were retrieved, documented and bagged. It became clear that the recorder also required a handheld metal detector, or a pin-pointer to assist in the retrieval of small objects. The recorder was also required to assist the metal detector in maintaining accurate survey transects, by placing marker posts at regular intervals. This method worked extremely well in the areas cleared of vegetation, but in the overgrown areas (Figure 13) surveying along transect lines became increasingly challenging. The metal detector, therefore, divided the survey grid into smaller areas to maintain the accurate and comprehensive coverage of a grid.

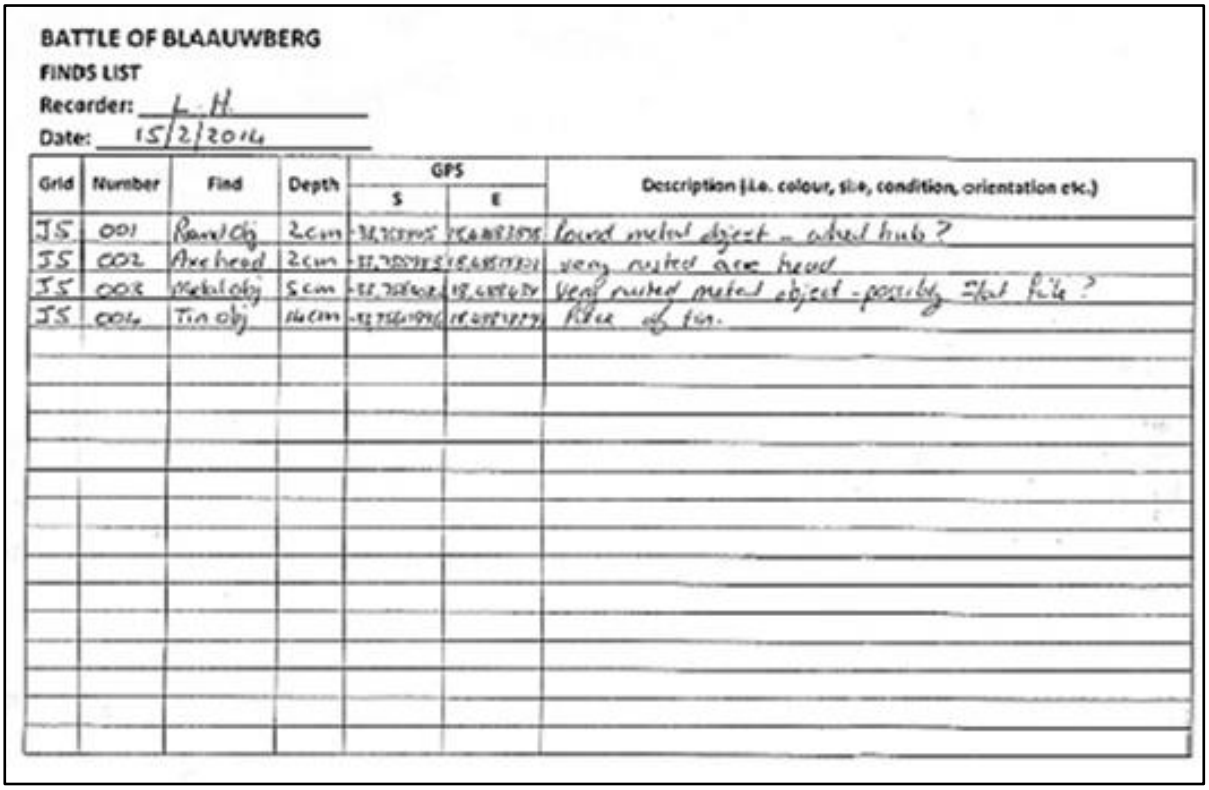
Figure 13. Extremely dense alien vegetation in specific areas of the battlefield

The field recorder played an integral role in the documentation by keeping accurate records of all finds. The recorder was equipped with a clipboard, pencil, recording sheets, and handheld GPS to document the artefacts. Once retrieved, each find was placed in a sealable plastic bag with the completed identification label (Figure 14). The label contained a specific find number, date and find description. The recorder also recorded the artefact on a finds list that included the coordinates as obtained from the handheld GPS (Figure 15).



Site	BoB
Specimen no	J5 002
Area	British Artillery
Grid	J5
Artefact	Axe head.
Date	15/2/2014

Figure 14. Example of field completed artefact label placed in a sealable plastic bag



BATTLE OF BLAAUWBERG
FINDS LIST
Recorder: L. H.
Date: 15/2/2014

Grid	Number	Find	Depth	GPS S	GPS E	Description (i.e. colour, size, condition, orientation etc.)
JS	001	Round Obj	2cm	-33.70[illegible]	18.48[illegible]	found metal object - wheel hub?
JS	002	Axe head	2cm	-33.70[illegible]	18.48[illegible]	very rusted axe head
JS	003	Metal obj	5cm	-33.70[illegible]	18.48[illegible]	Very rusted metal object - possibly flint lock?
JS	004	Tin obj	4cm	-33.70[illegible]	18.48[illegible]	Piece of tin.

Figure 15. Example of completed finds list used to document retrieved artefacts during field surveys.

In the laboratory, the artefacts were provisionally cleaned, while care was taken to ensure that correct artefact sequence numbers were assigned. GPS coordinates were downloaded into the Garmin Basecamp software from where these were exported to either Google Earth or a GIS programme.

During the later stages of the survey, the field recording process was streamlined without losing any accuracy. It made the time spent in the laboratory more extensive. The recorder was only equipped with a handheld GPS and sealable bags with numbered tags. Each retrieved artefact was placed into the sealable bag and assigned a numbered tag. The same number would then be assigned to the GPS coordinate. In the laboratory, the GPS data was then downloaded and the correct sequential number assigned to each artefact. Labels were completed and placed in the sealable plastic bag and the finds list was updated.

5.3. Analysis of artefacts

The analysis of the artefacts formed an integral part of the research and provided valuable information for the comprehension of the battle. During the field surveys, metallic and non-

metallic artefacts such as ceramic, glass fragments and lithic artefacts were identified. Due to the area being used for other activities over time, not all the artefacts have relevance to the battle and were not analysed.

The following artefacts were analysed:

- Musket balls;
- Cannon projectiles;
- Buttons;
- Buckles; and
- Coins.

5.3.1. Analysis of musket balls

5.3.1.1. Introduction

The musket balls retrieved from the battlefield of the 1806 Battle of Blaauwberg are classified as the artefact class with the highest number in total and it is therefore vital to investigate the use and position of the musket balls. Scott *et al.* (2017: 1) state that the smoothbore flintlock musket was used during battles but also in commerce and trade. Reichmann (1945: 4) argues that by the end of the 18th century the basic strategy during a battle had changed little since the late Roman Empire. The physical engagement of the two armies was the main objective, and the outcome depended on the effectiveness of the cavalry charge. The firing power of the infantry during the 18th century was not at all profitable because the eventual bayonet charge was used to subdue the enemy (Reichmann 1945: 5).

The Reverend Martyn commented on the events during the early engagement of the battle, “then came such a long-drawn fire of musketry, that I could not conceive anything like it. We all shuddered at considering what a multitude of souls must be passing into eternity” (Smith 1892: 122). From this, it is obvious that numerous smoothbore flintlock muskets were discharged. The analysis of the musket balls, therefore, not only focused on the projectiles but also required an investigation into the different muskets used during the battle.

A study of smoothbore flintlock muskets was required to understand the use of the weapons and the associated projectiles (Scott *et al.* 2017: 1). Since very few weapons or parts of weapons form part of the archaeological record, the focus of the research was on making sense of the projectiles. Even though the musket ball might be an insignificant archaeological find, battlefield and conflict archaeology require an analysis of this artefact class (Shiels 2011). Shiels (2011) further states that many musket balls do not come from muskets but could represent many other forms of weapons that were used on battlefields such as cannons discharging canister shot filled with many musket balls. Musket balls could shed light onto the positions of different soldiers on a battlefield. The accurate recording of the position of the musket ball provides the archaeologist with a unique plan of how the battle developed and how the fight progressed. It is therefore possible that the archaeological record of musket balls can significantly alter previous interpretations of the battle that were entirely based on historical accounts (Shiels 2011).

Musket balls are significant as they provide palpable evidence of an event that was violent and traumatic for those involved. These musket balls were deposited during a short period and bear evidence of the purpose to kill. It is poignant to remember that they were last handled by individuals experiencing severe anxiety while taking part in a defining event in their own life, and in the history South Africa. These artefacts and the assemblage justify being analysed as they offer brilliant insights to the battle (Shiels 2011).

Zabecki (2014: 642) states that the flintlock mechanism made its appearance during 1610 and by 1660 had replaced both the matchlock and wheel lock musket mechanisms. From a German perspective, the Prussian 1723 and 1740 model muskets were the first standardised firearms adopted by German armies, while the Prussian Jaeger flintlock rifle was introduced in about 1750. The jaegers[23] were specialised light infantrymen who used these rifles because of their superior range and accuracy. The smoothbore musket did not have the rifling that created spin on the projectile to improve accuracy (Haythornthwaite 1979: 13).

The flintlock comprised a couple of main parts including the hammer, a cock, a clamped flint, the frizzen, pan, trigger and spring. Once cocked, the trigger made the hammer and flint

[23] German for hunters

crash on the frizzen to create a spark that would ignite the gunpowder and send the musket ball down the barrel. Most soldiers prepared a cartridge in advance, comprising a musket ball and accurately measured gunpowder wrapped in a piece of greased paper, to be more effective during the reloading process (Haythornthwaite 1979: 15). Haythornthwaite (1979: 19) further discusses the effective ranges of firing a flintlock musket, and according to tests conducted during the early parts of the 1800s, the French, British and Prussian muskets were the most accurate at shorter distances, below 75 metres, while the accuracy drastically dropped when the distances were increased. As an example, Haythornthwaite (1979: 20) mentions the Battle of Talavera (27–28 July 1809) during the Peninsular War in Spain, where between 1250 and 1300 French soldiers were shot during successive volleys of musket fire by the British. Calculating the success of the musket fire it was found that the British fired about 30 000 shots, of which only 4 per cent was effective.

Since 1718, the French have been manufacturing infantry muskets at Charleville, under the control of the so-called Corps Royal de Vartilerie. Gradually, the French Charleville musket became superior to many other countries' products and was hence widely used. Although the ball was slightly smaller than that of the British, so-called 'Brown Bess' musket, its range was more superior (Hicks & Todd 1937: 75). Reichman (1945: 7) also comments that the French Charleville musket, especially the 1763 model, became the regulation weapon of the French army, while the British used the Brown Bess. Brown Bess was merely a nickname given to the weapon officially known as the Land Pattern Musket, but subsequently included variations such as the Short and Long Land Pattern, the India Pattern, the New Land Pattern and the Sea Service Pattern muskets. Reichman (1945:7) further notes that due to their popularity and effectiveness both Charleville and Brown Bess muskets were used during the American Revolutionary War from 1775 to 1783. According to Osborne (2007: 1), the Brown Bess musket was the best-known British musket and was extremely widely used.

The Prussian 1782-pattern musket and muskets such as the Danish 1791-pattern musket were based on the British musket construction, emphasising that even though countries manufactured their own weapons, a common technology was used. During wartime, even Britain procured muskets from manufacturers in other countries, such as Russia

(Haythornthwaite 1979: 22). The Dutch initially also procured weapons and parts from Germany that led to the assembly and later the manufacture of their own. Dutch military and civilian weapons were mostly manufactured in urban centres and eventually became a large export commodity since their quality control was superb (Kist *et al.* 1974: 33). Mathieu Willemsen, curator of the Nationaal Militair Museum in the Netherlands commented on the standard military issue of muskets before 1806, stating that the Dutch did not have a standard military issue as other countries had standard patterns from the period before 1807. Several patterns of muskets were in use, with different calibres. For example, officers' muskets had smaller calibres than those of the standard soldier. Typical Dutch muskets are the extreme long brass barrel bands. Infantry muskets had a calibre of 16 balls per pound, artillery muskets a calibre of 20 balls per pound, and jaeger rifles had a calibre of 18 balls per pound (Mathieu Willemsen, pers. comm. 22 February 2018).

It is, therefore, possible that the different regiments were associated with a specific musket. The British forces would likely have been issued with Brown Bess muskets, the French Marines could have been using the French Charleville, while the German Jaegers of Waldeck probably used Jaeger rifles. Exactly which type of musket the Dutch, Hottentot Light Infantry, Waldeck Infantry and local militia used remains unclear, as a variety of smoothbore flintlock muskets could have been used.

5.3.1.2. Curation and measurements

The analysis of musket balls started with the preliminary cleaning of the soiled musket balls, making use of a soft dry brush. Special care was taken not to damage the musket balls through excessive abrasion. Various techniques of cleaning were investigated, but an initial attempt to clean the musket balls through the process of electrolysis proved unsuccessful as it resulted in the disintegration of the lead artefact (Van Oordt, pers. comm. 20 May 2016). It was decided to commence with thorough cleaning just before the final curation, after the consultation about cleaning of heavily soiled and corroded items had been completed. The soft dry brush technique was used to remove excess soil from the musket balls to measure, observe and accurately document any specific features. Fortunately, the nature of the retrieved lead musket balls is such, that few of the musket balls were corroded, with the

majority still in an excellent condition with a fine patina. The musket balls that were impacted, similarly, showed little evidence of corrosion or oxidation. It was, therefore, possible to measure the musket balls without rigorous cleaning.

The depth of the musket balls, and all other artefacts were noted but ignored for the analysis of the musket balls. Although the retrieved depth could prove significant in interpreting several aspects of the battlefield, such as sand movement, dune stability and the effect of ploughing on specific areas within the battlefield, it was decided not to use the retrieved depth for this research. Further, the excessive activity of ground burrowing moles and rodents has churned up the sandy soil so much that the retrieved depth of the artefacts could also prove to be inaccurate or futile to determine accurately.

During the field survey a significant attribute of all artefacts, their geographic position, was recorded making use of a handheld GPS. From the resulting musket ball distribution map, analysis was conducted on the significance of any patterns or high density areas. Subsequently, the distribution maps were compiled to reveal different attributes of the musket balls, such as impacted versus non-impacted balls and balls originating from different weapons.

The examination of every musket ball was conducted to determine a range of aspects including:

- Mould seam;
- Casting sprue;
- Patina;
- Ramrod marks;
- Impact and level of impact;
- Indentations and marks; and
- Corrosion or encrustation.

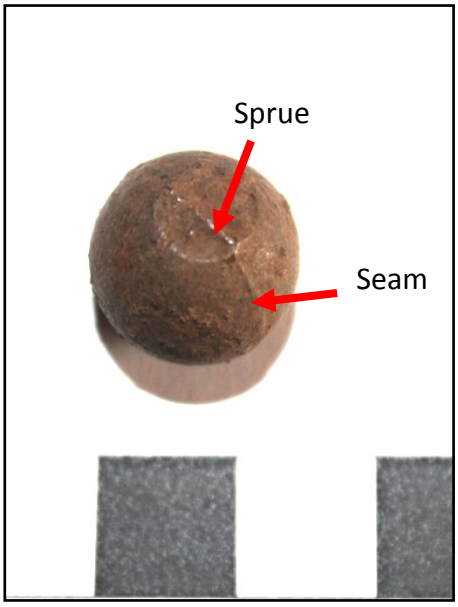


Figure 16. Musket ball sprue and seam

Figure 17. Indentation on a musket ball

Figure 18. An impacted musket ball

Figure 19. Three different musket ball sizes

All musket ball observations were made using a magnifying glass as it was regularly found that with the naked eye not all the details were observed. The mould seam (Figure 16) represents the seam or edge resulting from the casting process. The musket ball moulds comprise two halves, to enable the easy removal of the cast. A seam line protrudes with the

size depending on how tight the fit between the two halves was (Foard 2009: 18). Similarly, the casting sprue reveals part of the manufacturing process of the musket balls. The single ball cast, with the two halves closed, had an opening in which the molten lead was poured, the sprue was subsequently cut off using a nipping tool or a knife, resulting in a sprue mark (Figure 16). Multiple ball casts would have multiple sprue marks on a ball, as the cast would allow molten lead to flow from one ball cavity to the adjacent ball cavity. Regularly the transportation of musket balls in crates or even pouches resulted in the musket balls bumping against each other, with the abrasion removing the casting sprue mark and mould seam (Foard 2009: 16).

The ramrod marks on the musket balls resemble the mark created by ramming the musket ball down the barrel (Figure 17). This was necessary before every shot fired as it ensured the ball snugly fit the base of the barrel. If the ball was not rammed down, the gap between the black powder igniting and the ball could cause the barrel to explode and kill the shooter (Foard 2009: 23). Single or multiple marks could be visible on the musket ball; depending on how many times the shooter shoved the ramrod down the barrel.

Impact on a musket ball was noted if the ball was not its original spherical shape (Figure 18). The impact was hence graded as being heavy, medium or slight impact. The impact was purely noted and graded based on observations only, with deformed balls graded as heavy impacted, balls that still have half the ball in a spherical shape graded as medium impact, with slightly impacted balls revealing a little impact or only an indentation.

Alternatively, indentations on the balls were also noted that could have resulted from being shot as part of the collection of balls in a canister shot. These indentations on musket balls could mean that they were not shot from muskets but from the barrel of a cannon, like shotgun projectiles. The adjacent balls would bump into each other as they exit the barrel of the cannon resulting in multiple indentations and a deformed ball (Foard 2009: 13).

Other marks on the musket balls could also be determined such as scratch marks, chew marks, or hammer marks. Corrosion or encrustation was also visible on some balls, but most showed no signs of encrustation or corrosion. Most of the sand encrusted on the surface of

the balls could easily be removed through brushing with a soft brush, but some had a hard crust challenging to remove; these were left with the encrustation as excessive abrasion could damage the ball.

Measurements were conducted to determine the size and weight of the balls. The balls' diameter was measured using a digital calliper at a 90^{o} angle to the mould seam, as the protruding seam could cause an inaccurate measurement (Figure 19). Deformed balls were measured as accurately as possible in an area deemed to be least affected. As these measurements obviously could not be used to determine the original ball size, it was purely conducted to record the detailed characteristics of the artefact.

Weighing of the musket balls started using a digital scale with an accuracy of 0,05 grams. It was determined that with the aptly named 'Sivilich formula', the weight of a deformed musket ball could be used to calculate the ball diameter. Dan Sivilich, through his research on amongst others, the Monmouth Battlefield, devised a formula that incorporates the average density of lead as 10 479 grams per cm^3. The weight of the ball becomes the variable in the following calculation:

Musket ball diameter = 0,223204 X (weight in grams)$^{1/3}$ (Sivilich 1996: 104)

During a musket ball ballistic test, Scott *et al.* (2017: 75) concluded that the 'Sivilich formula' was consistent and precise. A comparison between two data sets was conducted and according to Scott *et al.* (2017: 75) Sivilich's calculation is inclined to overestimate the ball diameter, but the difference is too small to be significant. From the ballistic experiments, it was concluded that the Sivilich formula was consistent, reliable and precise for determining the original ball size using its weight (Scott *et al.* 2017: 75).

Once the ball diameters could be determined, the association could be made with the smoothbore flintlock musket or rifle used to fire the ball. Since not all musket balls were perfectly manufactured the results of the measured and weighed musket balls should, therefore, be taken as an average and a range for each ball size determined.

The Sivilich formula was developed in the United States where the Imperial System of measurement is used, so the musket ball sizes are reflected in inches. It was therefore decided to continue with the Imperial System for the musket ball measurements, and conversions have been made from millimetres to inches to concur with the reference towards musket ball sizes.

5.3.2. Analysis of cannon projectiles

5.3.2.1. Introduction

The analysis of cannon projectiles requires an understanding of both British and Batavian artillery organisation and use. During the late 1700s and early 1800s, British military organisation of the artillery was under the control of the Board of Ordnance, specialising in the provision of arms (Dawson *et al*. 2007: 96). The Board of Ordnance was charged with the acquisition, regulation, control, and production of arms for the British military and navy (Caruana 1997: 7). During deployment, the British artillery was answerable to the Master General of the Board of Ordnance and not to the army headquarters (Kiley 2004: 158).

The British artillery was divided into two main divisions namely the Park of Artillery Division that included the heavy or siege artillery cannons and the mobile Battalion Artillery Division. The Park of Artillery normally had the siege cannons and heavy artillery (12-pounder and above and heavy howitzers 8 inches and above) while the Battalion Artillery comprised the lighter and more mobile artillery cannons (3-pounders, 6-pounders and Royal howitzers, 5½ inch, or the Coehoorn howitzer of 4,4 inch) (Caruana 1977: 7).

The Battalion Artillery was assigned to a specific battalion of infantry and manned partly by selected infantrymen known as Additional Gunners (Caruana 1977: 7). The light 6-pounder Battalion cannon (Figure 20) was the preferred cannon at the time of the 1806 Battle of Blaauwberg and these were normally attached to a battalion of infantry in pairs. The Battalion Artillery marched and fought with their attached infantry and provided close support during deployment and attack.

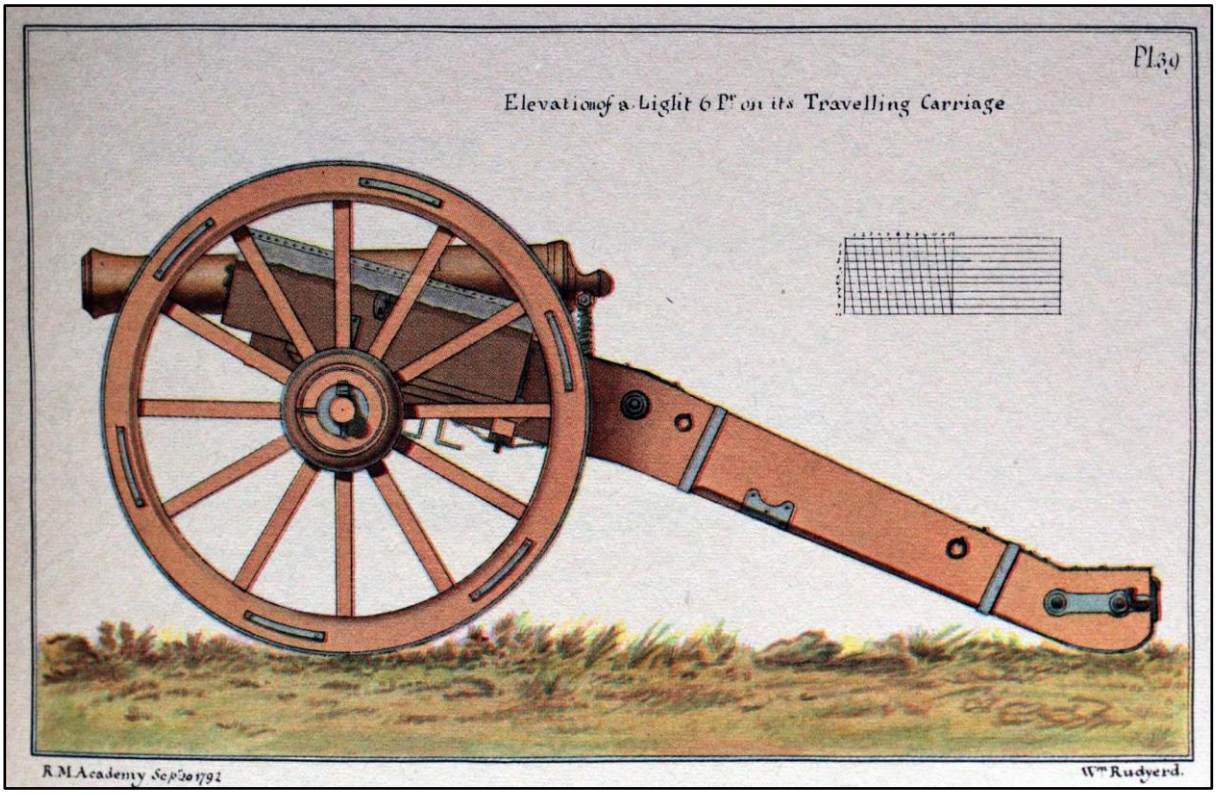


Figure 20. The British light 6-pounder cannon (Rudyerd 1793)

Artillery tactics by all the European armies relied on the manoeuvrability and mobility of the Battalion Artillery. Napoleon pioneered the use of the artillery to achieve strategic objectives during the battle. Therefore, the artillery became more mobile. By 1778, the mobility of warfare had increased so much that a new branch of artillery was created, named the Horse Artillery. Military doctrine of the time believed the proximity of the return fire of the 6-pounder cannons boosted the morale of the troops when subjected to an artillery bombardment (Caruana 1977: 7; Dawson *et al*. 2007: 203).

A howitzer (Figure 21) is a short, large-calibre weapon used to fire an explosive shell with potential massive damage to the target (Caruana 1997: 7; Muller 1779: 65). It had the advantage that the projectile could be shot with a high trajectory over the heads of friendly troops (Hughes 1969: 35). The projectiles could have been the common shell, a hollow shell filled with gunpowder, or shrapnel shell filled with gunpowder and lead balls, or grapeshot, or canister, also named case shot. Case shot was filled with metal fragments or balls like a contemporary shotgun cartridge and could cause absolute carnage to the enemy line at close range. Grapeshot was a canvas bag filled with large metal balls and tied down to

resemble a cluster of grapes (Hughes 1969: 53). The howitzer was used as stationary cannon during battle and the position thereof was crucial and strategic. Long-range projectiles were the common shell, which upon explosion would disintegrate into multiple lethal fragments, while short-range projectiles comprised the grapeshot and canister or case shot (Henry 2002: 18).

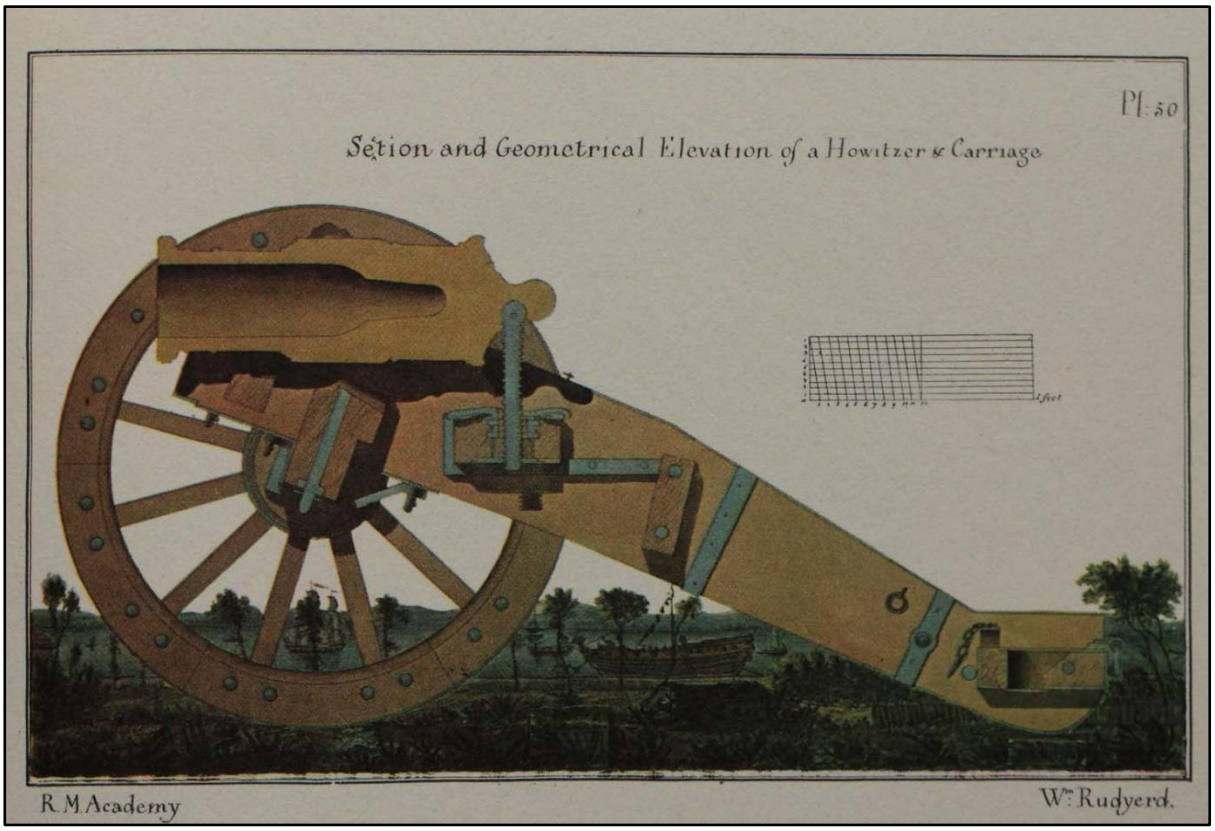


Figure 21. Cross-sectional image of a British 5½ inch brass howitzer (Rudyerd 1793)

The British battle organisation was normally divided into two brigades, each comprising three regiments, and each issued with two 5½ inch howitzers and six light 6-pounder battalion cannons. This grouping matches the British forces deployed at the 1806 Battle of Blaauwberg exactly as the British were divided into the First Brigade or English Brigade and the Second Brigade or Scottish Brigade each comprising three regiments. The Second Brigade comprised the 93rd Regiment, the 71st Regiment and the 72nd Regiment, while the First Brigade comprised the 24th Regiment, the 83rd Regiment and the 59th Regiment (Baird 1806). As the organisation was according to the standard it could, therefore, be assumed the cannons would be divided similarly. There is, however no reference to the specific attachment or placement of the cannons during the battle in any of the post-battle reports.

The two howitzers were most probably placed between the two brigades and the six light 6-pounders were probably divided into three pairs and placed in strategic positions. The strategic positioning could be that four of the light 6-pounders would be with the Second Brigade (as they formed the initial attacking force) while the remaining two light 6-pounder cannons were involved with the First Brigade. The light 6-pounder cannons advanced with the progression of the infantry.

To turn the attention to the Batavian defensive line, General Janssens positioned his men strategically to cover the main route from Cape Town northwards. He positioned his artillery towards the east and west flanks and slightly in front of his defensive line. The Batavian artillery had two 24-pounder howitzers, six 6-pounder field cannons, two 3-pounder field cannons and six 1-pounder cannons (Theal 1908: 390; Janssens 1806; Van Oordt 2017). This brings the total number of artillery pieces the Batavians had at their disposal to 16. Van Oordt (2017: 46) argues that the discrepancy that exists between the number as quoted by General Janssens and the British reports, which quote 22, 23 and even 30, results from the timing and knowledge the British had when they compiled the various reports. After the battle, the British seized all artillery pieces, and this number was higher than the actual pieces present at the battlefield (Van Oordt 2017: 48).

The actual Batavian artillery arrangement and positioning on the battlefield require further discussion. Janssens' positioning of the artillery is referred to in his report (VC80) as on the right wing the horse artillery, comprising two 3-pounder cannons, the Light Dragoons, also on the right flank, then the 9th Regiment of jaegers, the two howitzer and three of the 6-pounder cannons, the 22nd Regiment of Infantry, the French Marines, the 5th Regiment of Waldeck and the two companies of Hottentot Light Infantry and then the Javanese Artillery with three 6-pounder cannons and six 1-pounder cannons and the jaegers of Waldeck. The burgher cavalry was positioned in the dune field. In his report Janssens omits mentioning the artillery position towards Kleinberg on the Batavian left flank, but he mentions (VC80: 26) that artillery pieces were occasionally taken from the line and placed where they were required.

5.3.2.2. Curation and measurements

The cannon projectiles are significant as they provided much-needed insight into a specific aspect of the battle and the battlefield. The purpose behind the analysis of the cannon projectiles mostly involved the determination of size, calibre and origin. This revealed information pertaining to the cannon and artillery position, which were subsequently used to delineate the battlefield.

The depth of the retrieved cannon projectiles was noted but was ignored for this research. Even though the retrieved depth could prove significant in interpreting several aspects of the cannon balls such as the direction of impact and velocity, it was excluded from this discussion.

During the field survey, the geographic position of each projectile was recorded making use of a handheld GPS. The resultant distribution map was used to conduct calculations to determine firing positions and ranges. Subsequently, the high density areas of retrieved cannon projectiles were used to show the route used by the main body of the British approach and the positions of the Batavian defensive line.

During the field surveys, the cannon projectiles were placed in sealable plastic bags and numbered according to the numbering system. It was noticed that the nature of the cannon projectile material was prone to corrosion and hence, immediate stabilising of the artefacts was required. The projectiles were removed from the plastic bags and placed in individual plastic containers containing silicon crystals, to prevent rapid deterioration and corrosion. Thorough cleaning and preservation of the cannon projectiles will be conducted once enough consultation about correct procedures has been concluded and is therefore not included as part of this study.

The brittle and fragile outer layer of the projectiles was carefully cleaned with a soft brush to remove excess soil but not break the artefacts. On selected projectiles, a small section of the surface was thoroughly cleaned to remove the layer of corrosion. This enabled us to determine the thickness of the corrosion and thus derive a more accurate determination of the ball size or fragment curve and subsequently its circumference.

All projectiles were weighed and measured, while the material used to manufacture was noted and the level of corrosion assessed. Measurements were made with a digital calliper measuring the maximum and the minimum diameter of the spherical projectiles. Excessive protrusions that occur on several the balls were excluded from the measurements as they distorted the accuracy of the dimensions. Further, cannon shell fragments were also weighed and measured, but the emphasis was on the thickness of the shell fragment and the curvature that could be used to calculate both the inner and outer circumference.

5.3.3. Analysis of buttons

5.3.3.1. Introduction

Marcel (1994) argues that although many aspects of life do not survive to become part of archaeological data, some artefacts such as buttons provide specific identifying features that offer insight into the history of a site or an event. According to Lindbergh (1999: 50), details of everyday life may be found in the small things that are lost, but are significant in the final assessment of the cultural material. On buttons retrieved from battlefields, Sharpe (2013: 44) observes that during the fighting soldiers literally shed metal. These included buttons, hooks, parts of guns and swords lost from soldiers' coats, waistcoats, breeches, sleeves and cloaks during the fighting, or afterwards when their wounds were treated.

Olsen and Campbell (1962) state that buttons bearing specific insignia or markings can be assigned a date with relative accuracy. According to Olsen (1963: 552), even the button form can be used with relative accuracy to date certain plain military buttons. According to Seeman (2001: 135), buttons require a separate discussion as they have a specialised function because they were used both as practical fasteners for clothing items and for display. Buttons provide much information ranging from the identification of the association of the bearer to dating and the position of the bearer at the time the button was lost.

Olsen (1963: 552) argues that even though military buttons with insignia and other identifiable markings can easily be recognised, the plain military buttons also have distinctive patterns that can be given approximate dates of manufacture on their form alone. Olsen (1963: 552) further states that in 1767 the British War Office ordered that

regimental numbers were to be placed on the buttons of officers and men of other ranks. Unfortunately, this order was not widely accepted, as officers and civilians continued to wear the plain ‘gentleman's’ button. By 1784 soldiers of the Continental Army, during the American Revolutionary War, also wore buttons with insignia, which later became common practice in militaries across the world. Nevertheless, the buttons without the clear identification or insignia still provide insight into their date of manufacture.

Olsen (1963: 552) classifies plain metal military buttons according to their shape, which changed over time. Manufacturing techniques also improved, while the material also differed over time. Early metal buttons were rough cast with a hole drilled in the shank (Table 1), often even by the bearer self should a button mould be available. Olsen (1964: 389) explains that soldiers manufactured their own buttons with a simple button mould. These buttons were cast by melting the pewter or lead over a fire. During the French and Indian War (1756–1763), a plain cast white metal button with an iron-wire shank made its appearance (Table 1). This button also featured during the American Revolutionary War (1775–1783) and was worn by both American and British armies, but with the regimental number on the button face. Spun-back buttons, cast and machine spun to level the back, were manufactured and used from 1760 up to the end of the Revolutionary War. Buttons with a cast eye were used from the 1750s to roughly 1812.

The so-called ‘bullet’ shaped buttons, or domed buttons, were used from 1812 to about 1830, but soon afterwards manufacturers included their names at the back, which became common by 1820 (Table 1). Plain brass or bronze buttons, from 1800 onwards, had a simple eye soldered to the back of the disk. However, due to the numerous eyes that broke, a foot was added to the eye to improve the fastening of the eye. By 1830, two-piece brass buttons, that were less prominently domed than the ‘bullet’ buttons became popular (Olsen 1963: 553).

Table 1. Button dating according to form (Olsen 1963)

Date	Button characteristics
1700–1765	Rough cast brass or bronze buttons, hole drilled in the shank
1760–1790	Plain cast, white metal, iron-wire shank
1775–1783	Plain cast, white metal, iron-wire shank, a regimental number on the face
1760–1785	Plain cast, white metal or brass, brass-wire eye set in boss, spun-back buttons
1750–1812	Plain cast, white metal, heavy cast eye
1812–1830	Two-piece brass buttons, domed or 'bullet' shape
1785–1800	Plain brass or bronze buttons, coin-shaped disc, simple brass eye
1800–1820	Some makers added their names at the back, by 1820 it was generally accepted
1812–1820	Plain brass or bronze buttons, coin-shaped disc, a brass eye with bent over ends, back stamp added: Treble gilt, Extra gilt, etc., some had their faces stamped at a later date
1830–	Two-piece brass buttons, domed (less than 'bullet' buttons), plain and stamped design on face, a back stamp was common and bore maker's name

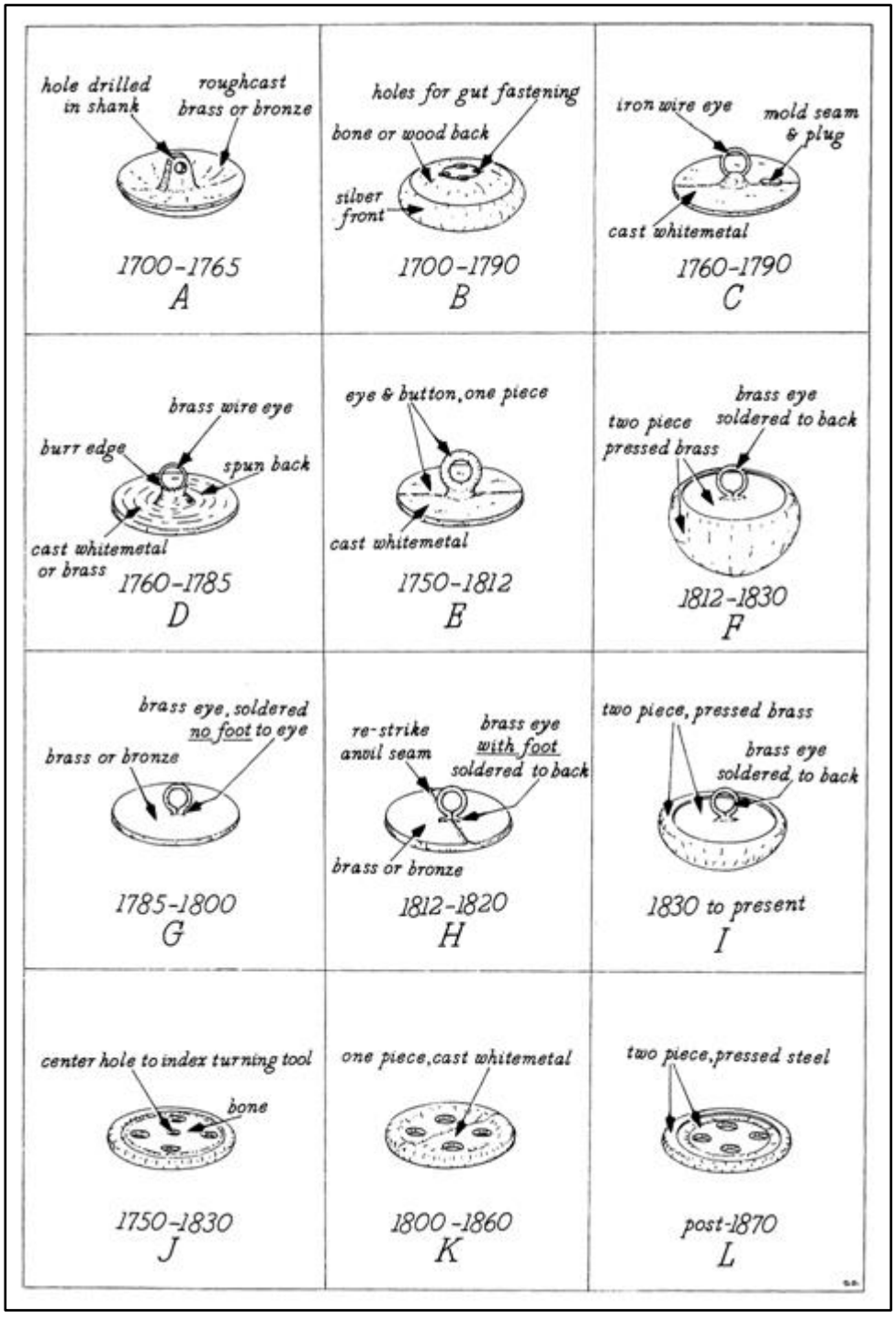


Figure 22. Button styles according to Olsen (1963: 553)

Buttons with four eyes, called trouser buttons, have changed little since about 1750 (Olsen 1963: 554). One identification marking on trouser buttons is that the early buttons, 1750 to 1830, have centre holes that acted as guides for the turning tool during the manufacturing process. From 1800 to 1860, the trouser buttons were cast and, after 1870, two-piece trouser buttons, that were pressed together, became popular.

Normal wear might have resulted in the loosening and eventual loss of a button, but it is more likely that a button was lost during combat on a battlefield or even during the cleaning of the battlefield. Medical attention to wounded soldiers and the transporting of these soldiers might also have resulted in the loss of a button. Numerous metal buttons were identified during the surveys of the 1806 battlefield and provided valuable insight into the development of the battle. It is therefore also necessary to analyse the distribution patterns of the buttons on the battlefield. The distribution of buttons provided clues to high-intensity fighting and the location of the yet to be identified graves of fallen soldiers.

5.3.3.2. Curation and measurements

The analysis of buttons started with preliminary cleaning of the soiled buttons using a soft dry brush. Special care was taken not to damage the buttons through excessive abrasion. It was decided to start with thorough cleaning before final curation, after consultation about the cleaning of heavily soiled and corroded items had been completed. The soft dry brush technique was used to remove excess soil from both the front and back of the buttons to catalogue the various attributes of the buttons. It was noted that the copper alloy material, used to manufacture most of the buttons, made it easy to remove excess soil. The copper alloy also showed that it was less inclined to corrosion in the existing environmental conditions than other metal artefacts. Even though some corrosion was visible on many buttons, the corrosion did not negatively affect the identification and analysis of the buttons.

The DAACS cataloguing manual for buttons (Aultman & Grillo 2012) was used to catalogue the 182 metal buttons. According to the DAACS cataloguing manual (Aultman & Grillo 2012), button terminology is not as standardised or as well known as terminology for other artefact classes, even though many historians have ventured into the identification of buttons. Due to the relative familiarity of buttons as everyday items and the easily identifiable characteristics such as makers' names, decorations and back stamps, it is easy to classify buttons according to their use and origin. Therefore, many historians and collectors have neglected the analysis and cataloguing of buttons (Lindbergh 1999: 50).

Many collectors and historians have websites and published books on historical and military buttons. While they all make valuable contributions to the identification of buttons based on their decorations and back stamps, most of them fail to indicate other significant aspects of buttons (Lindbergh 1999: 50). Over the years, military buttons have become synonymous with regimental colours due to their longevity. They have become valuable in recognising origin and date. Consequently, it has become important for the research to classify the buttons according to all characteristics.

The cataloguing of buttons according to the DAACS cataloguing manual identified the following aspects of buttons (Aultman & Grillo 2012):

- Completeness;
- Button type;
- The manufacturing technique of the button;
- The manufacturing technique of the button face;
- Button shape;
- Button material;
- The material of the button face;
- Join method;
- Number of eyes;
- Shank style;
- Shank material;
- Shank condition;
- Back stamp;
- Decoration;
- Measurement of button diameter; and
- Measurement of button height.

Complete buttons were noted as such, even though some showed minor damage or corrosion, as opposed to the incomplete ones that were either broken or missing a button component, such as a shank. According to the button type, the cataloguing showed four

different button types, namely flat disks, one-piece, two-piece, and three-piece buttons. A further differentiation was observed according to button type: those that were not flat were noted as domed or semi-domed. Flat disc buttons were classified differently to one-piece buttons due to their distinctive smooth and level character with a shank attached to the back. One-piece buttons either had sew-through holes or a shank attached to the back, but lacked the distinctive smooth flat surface (Aultman & Grillo 2012).

The manufacturing technique of the buttons was a component of the cataloguing that was identified through careful observation. The main manufacturing techniques included those button components that were stamped, those cast and those that were cast with the backs spun. The buttons that were cast with their backs spun showed circular grooves at the back showing the machine marks to even out the back of the button. The button shape refers to the shape of the button as seen from the front. Most buttons appear to be round, but other shapes are also found such as oval, square and hexagonal. The shape of the button could differ as part of the button decoration. Oddly shaped buttons, however, hampered the effectiveness of their intended use as it becomes tedious and difficult to prise the button through the garment's button loop or eye (Aultman & Grillo 2012).

The button material refers to the material from which the button was manufactured. Although glass, bone, wooden and even ceramic buttons are also available, metal detectors were used, and hence the buttons assemblage comprises metal buttons only. Pewter, lead, alloy and copper alloy materials were mostly used in the manufacturing of metal buttons. This was easily identified by making use of the technologically advanced metal detector equipment used during the surveys of the battlefield. The machines readily identified the material, but the corrosion characteristics also provided insight into the button material.

Two-piece and three-piece buttons comprise various parts that were joined together according to a specific technique. These techniques include crimping and brazing and were distinguished through observation. Buttons were attached to the garment with a shank or through holes or eyes in the button. The number of eyes was noted as either four or two eyes. The button shank was used for attachment to the garment and various aspects of the shank were distinguished. The shank style refers to the method or style in which the shank

was attached to the button. The attachment styles include: alpha style, omega style, cast eye, a cone with wire eye, drilled eye, shank through the back plate, shank cast in boss, wire eye, and embedded wire shank. Close observation of the shank through a magnifying glass revealed the slight variations. Further observations about the button shank such as the material and the shank condition were also noted (Aultman & Grillo 2012).

An aspect of the button analysis and identification pertinent to collectors' and historians' classification of buttons is the information in the back stamp of the button. The back stamp refers to the wording and/or decoration that appear on the back of a button. It was customary for button manufacturers to place their own name or the company's name on the back of a button. This information is helpful in dating buttons, as the historical information of the manufacturers is readily available and associated with a specific time. The front decoration on a button is probably the most notable aspect of a button through which both the purpose and origin of the button are identified (Aultman & Grillo 2012).

The condition of the button refers to the preservation of the button and whether it was noted as broken, corroded, fair or good. Taking into consideration that the buttons from the 1806 Battle of Blaauwberg battlefield are all metallic and prone to oxidation and corrosion, the preservation was important in making accurate observations. Lastly, the measurement of button diameter and button height was required to classify the button according to size. The size of the button was associated with the use of the button on a garment. The button height refers to the measurement from the front to the back inclusive of the shank. The significance of this measurement is to support observations made about the button. The differences between flat, semi-domed and domed buttons were determined through the ratio between the diameter and height of a button. The diameter of the button was used for further classification within a button class.

5.3.4. Analysis of buckles

5.3.4.1. Introduction

White (2009: 239) argues that historical archaeologists are developing an understanding of how to interpret archaeological sites by studying artefacts. Instead of only interpreting main

artefact classes, the uncommon and previously overlooked artefacts now also become valuable. White (2009: 240) continues that specific artefact classes such as ceramics and glass have been at the focus of many site interpretations while other classes have been marginalised. Besides typological studies, artefacts have the potential to provide much-needed insight into an archaeological site. White (2009: 240) advocates that all artefact classes can provide evidence for social behaviour change and lifestyle. White (2009: 251) argues that an artefact class, such as buckles, becomes a tool to assess the complexities of the past on both an individual level and at a larger group level.

Rivers (1999: 29) stresses the importance of artefacts of personal adornment and states that clothing is one of the most important aspects of a person's life and since the cloth does not last, the archaeologists only have the buttons, buckles, hooks and eyes left to study. Whitehead (1996: 2) remarks that early buckles, those before the 13th century, were regarded as status symbols and only later did they become part of everyday dress.

Most buckles for general wear and dress were manufactured from copper alloy, while iron and steel buckles were mostly used on horse equipment (Whitehead 1996: 3). White (2009: 241) observes that even though buckles are the most common type of fastener for clothing, the function of many buckles has not been recognised as fasteners on a knee, boot or garter, girdle, hat, stock and spur.

Since the identification of buckles for the use in the military shows no difference to those used as civilian wear, individual buckle style or use could not contribute to answering the research questions. The spatial distribution of the buckles added significance to the understanding of the routes on the battlefield, and subsequently, provide a thorough understanding of the battlefield.

5.3.4.2. Curation and measurements

Buckle analysis firstly focused on the recording of the buckle as retrieved during the archaeological surveys. The spatial distribution of the buckles was recorded using handheld GPSs and plotted within Google Earth Pro and a GIS software program to facilitate the mapping as part of the analysis process.

Subsequently, the retrieved artefacts were preliminarily cleaned to make the measurements, weighing and observations. Detailed cleaning would start at a later stage only after completion of sufficient consultation about the cleaning process. Cleaning was conducted using a soft brush to remove the excess soil and sometimes the slight encrustation. Fortunately, most of the buckles were manufactured from a copper alloy that is not prone to heavy encrustation or corrosion which made the cleaning process easy. Some buckles, however, were manufactured from iron or steel and have suffered heavy corrosion, making the cleaning and conservation of the buckle complicated. Notwithstanding, the identification and classification of these buckles could proceed since most of these characteristics were still discernible.

The buckles were subsequently classified making use of a combination of the DAACS cataloguing manual for buckles (2003) and *Buckles 1250–1800* (Whitehead 1996), focusing on the following buckle attributes:

- The material of manufacture;
- Fragmented or completeness;
- Frame;
- Chape;
- Shape;
- Length;
- Width;
- Hook type;
- Pin;
- Tongue;
- Decoration; and
- Use.

The buckles were observed with the use of a magnifying glass to note all the aspects required for an analysis. The material used to manufacture could be readily discerned by

close observation, and through the metal identification function of the metal detectors used to identify the artefacts during the field surveys.

The completeness of the buckle could be determined through observation, as any breakage was easy to see. The absence of the hook, pin or tongue proved harder to identify but was noted. Likewise, could the presence of a chape and the shape of the buckle be observed? The shape could be classified as either single- or double-framed, with single-framed being classified as a circle, D-shape, square or rectangular and trapezoid. The double-framed buckles are classified as D-shaped, square or rectangular and trapezoid (Figure 23) (Whitehead 1996; DAACS 2003).

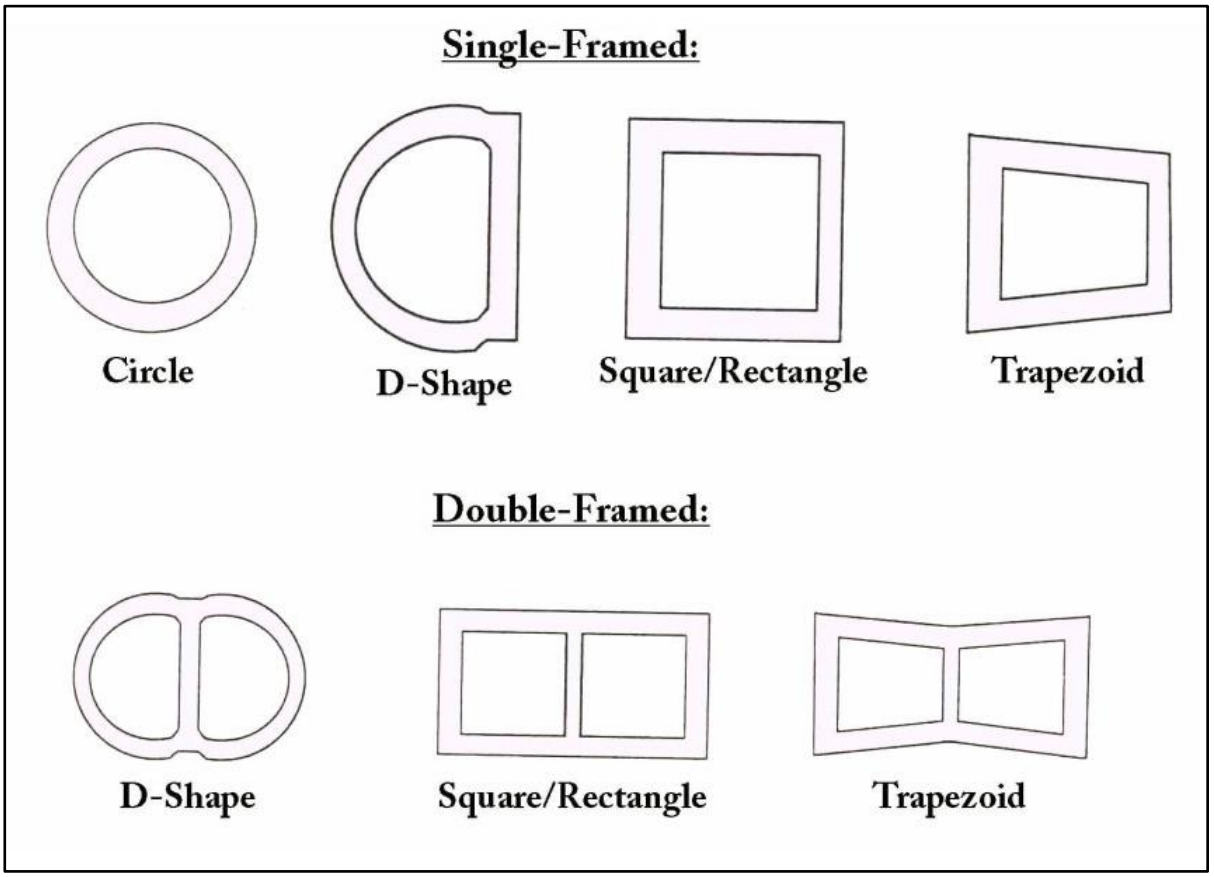


Figure 23. Buckle shape classification guide according to the DAACS cataloguing manual for buckles (2003)

Complete and accurate measurements of the length and width of the buckles were conducted using a digital calliper. The hook type, pin, tongue and decoration of the buckle were also observed through close inspection and recorded. The features were described by making use of the DAACS cataloguing manual as a guide (Whitehead 1996; DAACS 2003).

Once all the features of the buckles were recorded individually, identifiable buckles were used to configure the spatial distribution to have a better understanding of the battle events.

5.3.5. The analysis of coins

5.3.5.1. Introduction

Kemmers and Myrberg (2011: 87) argue that coins offer excellent insights into issues of the economy and state organisation, but also into so-called 'small histories', such as cultural values and the activity of humans. Kemmers and Myrberg (2011: 87) further argue that while the study of coins was important in the early years of archaeology as a discipline, it is no longer the case. The study of coins, or numismatics, has played a significant role in the development of new ideas and methods by ordering and describing the retrieved artefacts, but as the field of archaeology has developed, numismatics has played a diminishing role. In archaeology, numismatics is currently regarded as mostly descriptive and largely obsolete. It is argued that it fails to engage with broader archaeological topics and does not contribute much to an understanding of the people or societies that generated the material culture. The value of numismatics has since been primarily focused on providing a chronological sequence based on the classification, stylistic changes and dating of coins (Kemmers and Myrberg 2011: 87).

Kemmers and Myrberg (2011: 87), however, advocate that coins form part of the archaeological assemblage and therefore should not be treated as artefacts that can only provide a sequential chronology. Mostly because of their wide use and manufacture as symbols of exchange, power and status, coins could provide the archaeologist with much-needed insight into the site and the social life. Myrberg (2007: 157) adds that an approach to material culture that includes numismatics might present information such as social relations and patterns in society.

Myrberg (2007: 158) debates whether coins should be discussed and studied within a context, which she divides into primary, secondary and tertiary context. The primary context is the details of the coin itself, such as size, value, date, material and decoration, while the

secondary context refers to the use, transfer and alteration to a coin. Tertiary context, in turn, refers to the deposition of the coin that provides information about stratigraphy and spatial distribution.

Within the context of the 1806 Battle of Blaauwberg, the identification and retrieval of coins have a relatively low significance. Coins travel both geographically and through time (Kemmers & Myrberg 2011: 100) and it is, therefore, difficult to prove their presence at the battle. Having said this, the spatial distribution of the coins has the potential to provide insight into various aspects of the battlefield itself.

Some argue that coins in specific areas of the battlefield provide insight into the complex road or track network within the larger battlefield area. I argue that losing coins might occur through the difficulty of travelling along barely navigable roads or during the breaks at the outspan area.

5.3.5.2. Curation and identification

Analysis of coins from the battlefield started with a preliminary cleaning of the soiled coins using a soft dry brush. Fortunately, most coins retrieved from the battlefield showed little sign of corrosion or crustation. Special care was taken not to damage the coins through excessive abrasion, while a soft dry brush proved to be effective in removing excess dust and soil. Various techniques of cleaning were investigated but it was decided to start with the thorough cleaning only before final curation, after consultation about the cleaning of soiled and corroded items had been completed. The soft dry brush technique removed excess soil from both the front and back of the coins to identify the markings on the coins and other relevant attributes.

The markings on the coins could be readily identified, and the following information about the coins was noted:

- The date of the coin;
- The country of origin;
- The monetary value of the coin;

- The inscriptions and images on both sides; and
- The material of the coin.

Many collectors and historians have designed websites and published books on historical coins, and they all make a valuable contribution to the identification of specific coins. These websites, catalogues and books are, however, aimed at the collector and for general trade[24]. Still, it is very convenient to trace and identify coins within these collections, while the information gathered about specific coins is invaluable.

5.4. Conclusion

The methodology used during the research is an important aspect that guides the research to achieve accurate results and make pertinent conclusions. The field survey methodology was established through consultation with various role-players, and the practices at other battlefield sites with similar research questions and objectives. During the research, the methodology was further adapted to become more efficient, while not affecting the accuracy of the fieldwork. The eventual methodology was sound and effective, while the data collection was successful.

The analysis of the artefacts was exceptionally challenging as few similar analyses have been conducted on material within the South African context. To obtain reference samples for the exceedingly large sample retrieved from the battlefield was a challenge that required extensive consultation and research. Especially the musket ball and cannon projectile analyses provided a variety of material that required in-depth research to make conclusions.

Once the analyses of the different artefact classes had been completed, the results could be collated to compile the various distribution maps. The distribution maps provided me with the opportunity to make conclusions about their location and presence on the battlefield. CHAPTER 6 provides the results and discussion of the various analyses of artefact classes, while the reconstruction of the historical landscape proved to be instrumental in the complete understanding of the battle events.

[24] Examples: http://numismatics.org/newocreinterface/; http://www.coins-of-the-uk.co.uk/coins.html

CHAPTER 6. RESULTS

6.1. Reconstruction of the historical landscape

The current landscape of the study area does not resemble the historical landscape in which the 1806 Battle of Blaauwberg was fought. Although several geographic features and characteristics are undoubtedly similar, major environmental changes have occurred to alter the landscape so much it is hard to visualise the original battlefield. The main geological features including Blaauwberg Hill, Kleinberg and the adjacent hills have not transformed over the past 200 years, with the topography, being as it was during the 1806 Battle of Blaauwberg. Further, the historical position of natural springs, as shown Figure 24 and Figure 25, is still the same as the current natural springs within the study area.

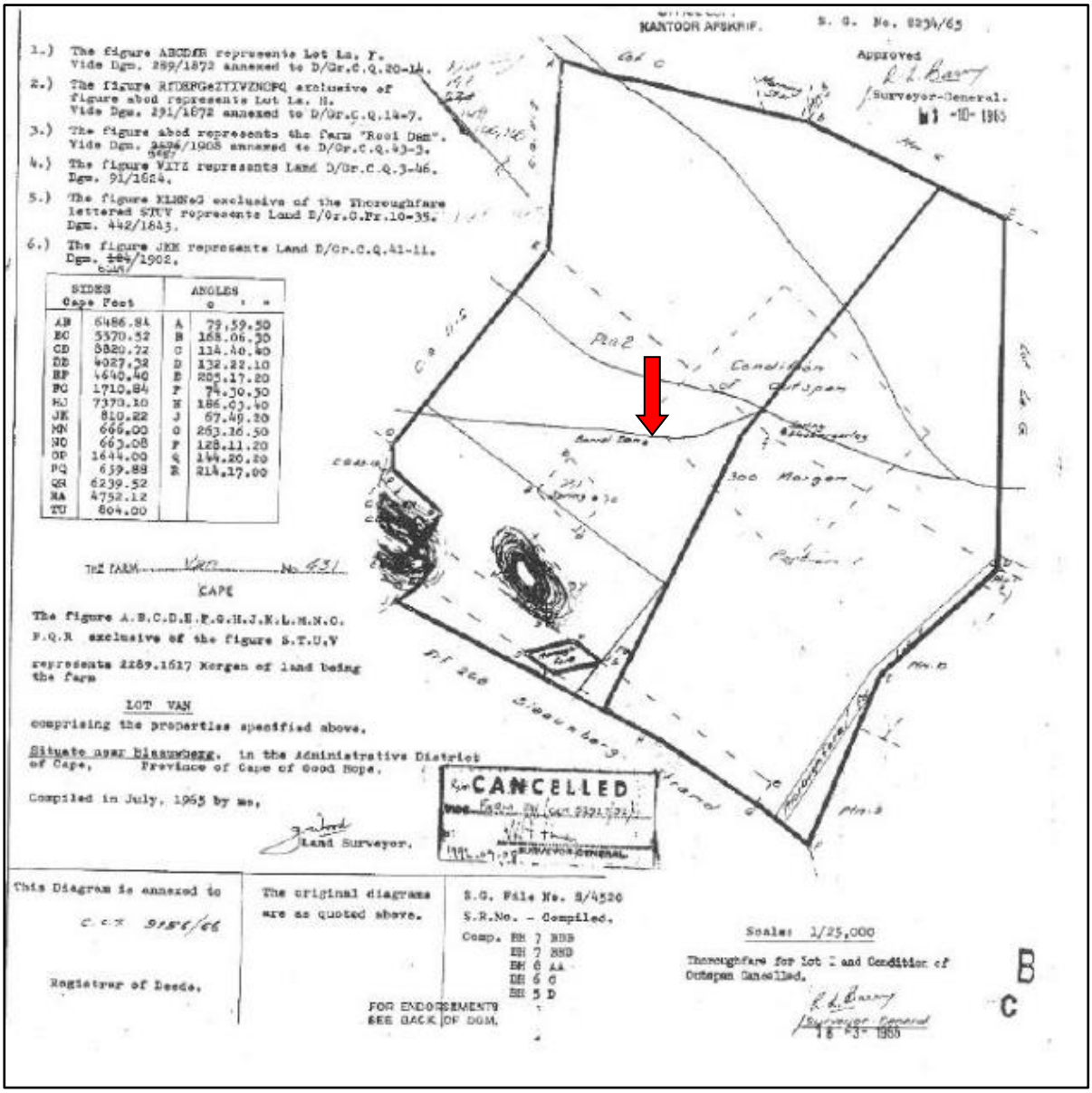


Figure 24. A diagram of Farm 431 encompassing various smaller properties, but also showing the position of the fresh water spring named Borrel dam (as shown by the red arrow) (S.G. 8234/65)

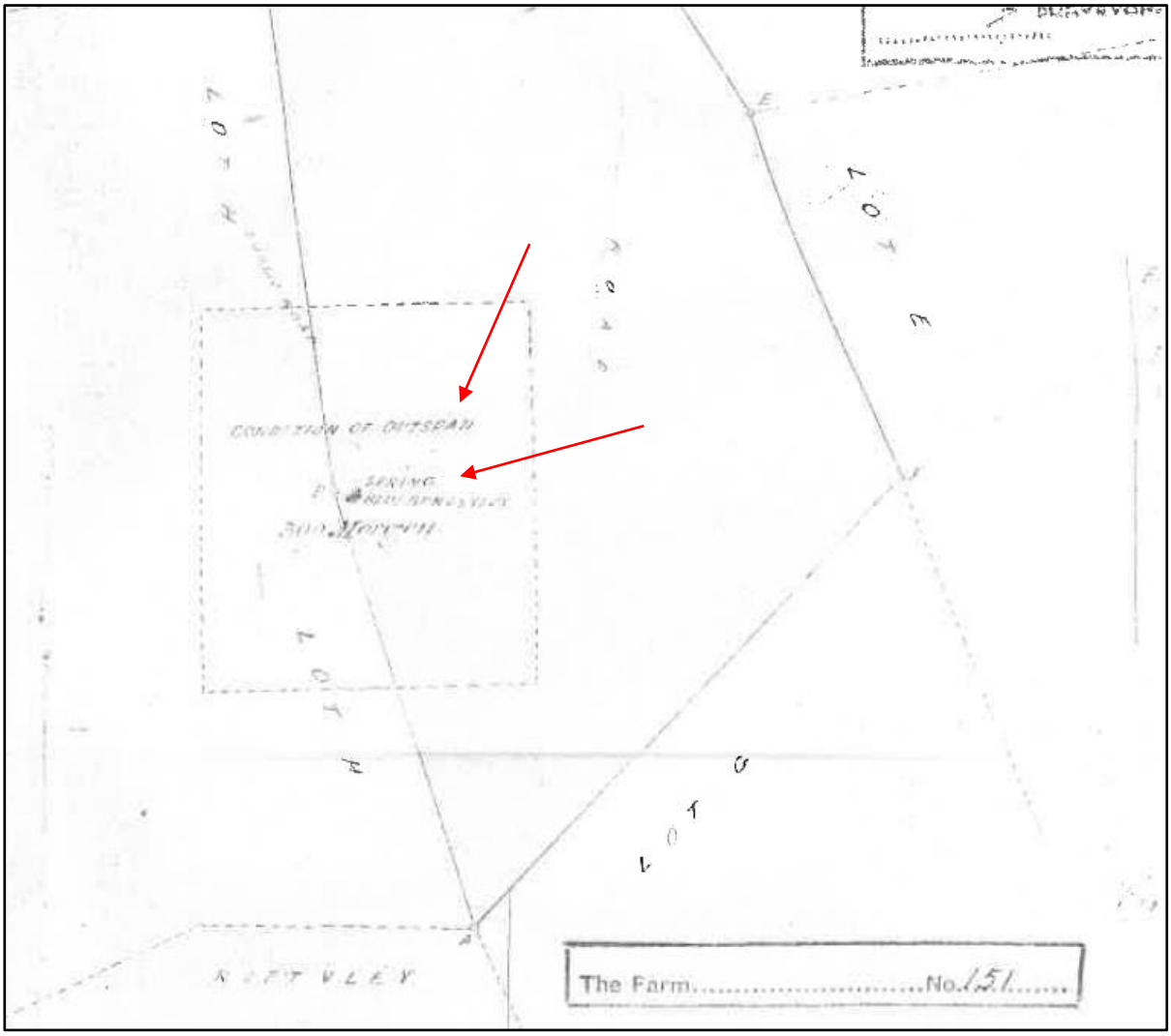


Figure 25. A diagram of the title deed in which the spring and outspan area in relation to the farm Blaauwbergsvlei can be seen (shown by the red arrows) (Diagram 289/1872)

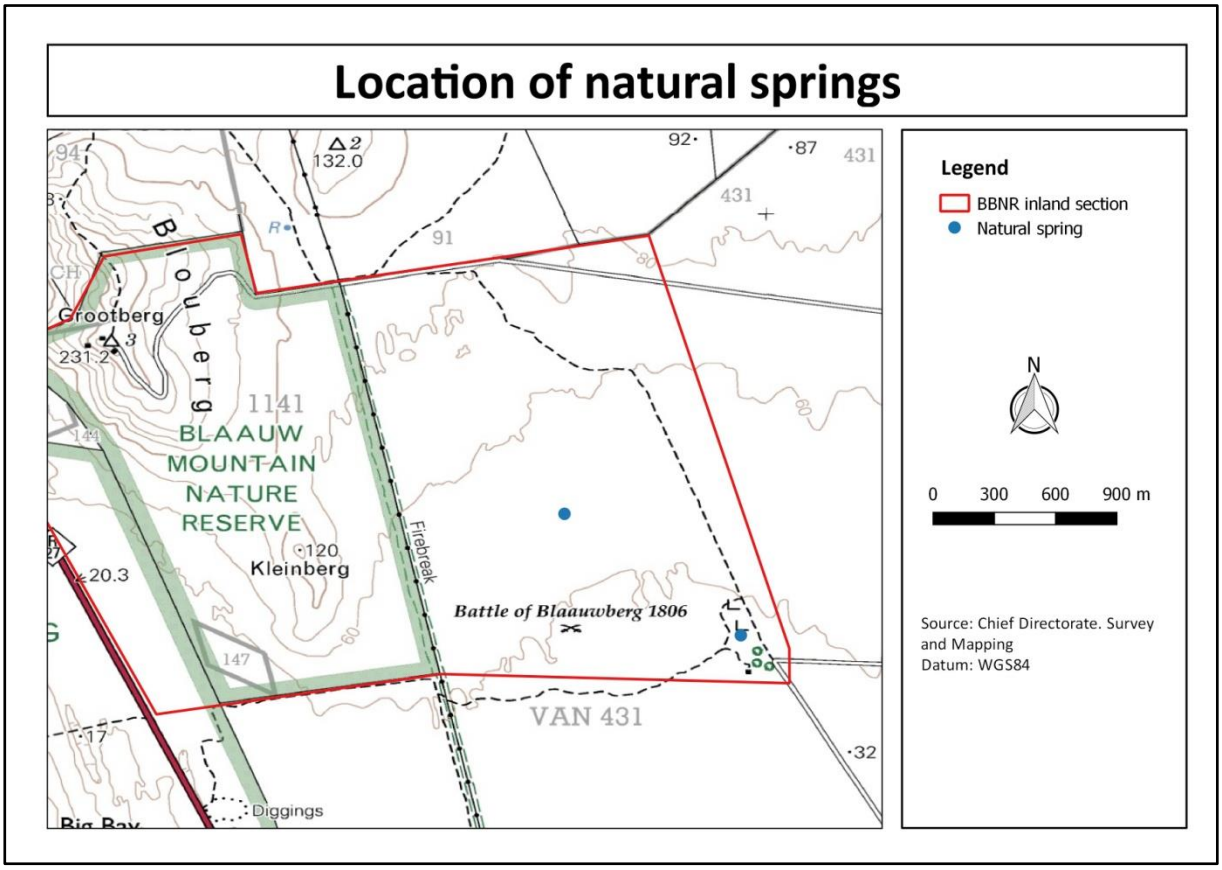


Figure 26. The location of two natural springs within the study area

The locations of the two natural springs within the study area are shown with Borrel dam located towards the north-west, while Blaauwbergsvlei is situated in the south-western corner of the BBNR (Figure 26).

Three environmental aspects and features merit discussion as two of these have been noticeably altered, and the third has had the potential to change. Firstly, the position of the routes, roads or tracks does not appear to be in the same location as in 1806. By overlaying historical maps[25] on current maps, the contemporary route, road or track network differs from the historical network. Since the road network is significant in resolving locational issues of the battle positions, it requires investigation to determine the position of the historical routes. The battle positions as shown on the maps make it possible to assume their positions from the archaeological evidence collected. The archaeological evidence can

[25] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

indicate the position of the various battle positions and provide evidence for the position of the roads.

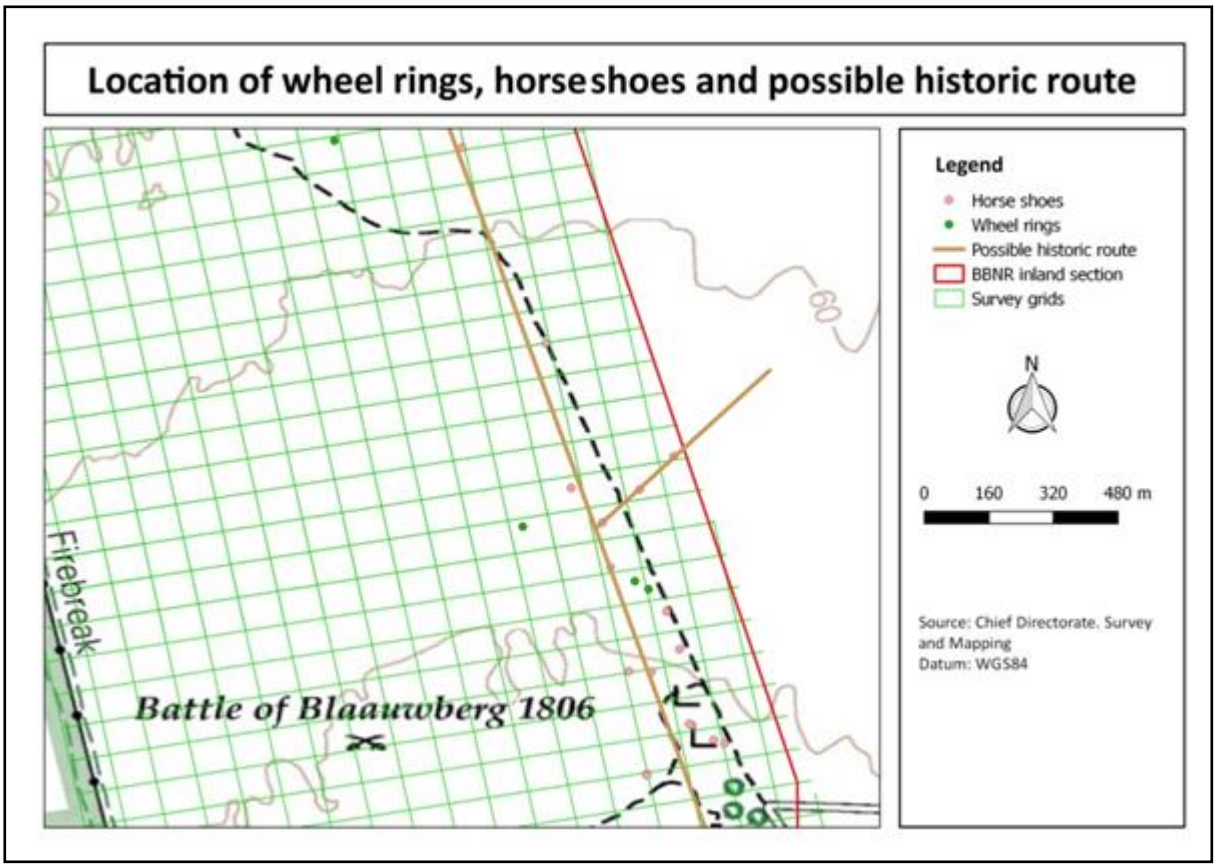


Figure 27. The location of a north–south and adjacent route associated with the locations of horseshoes and wheel rings

The high concentrations of artefacts associated with transport, such as horseshoes and wagon parts, provide an indication of potential historical routes. Figure 27 shows the locations of horseshoes and wheel rings that could be associated with the positions of historical routes. The north–south linear distribution of horseshoes could point towards horseshoes being lost while travelling along the main north–south route through the study area.

The positions of a reconstruction of the main north-south route and a route leading to the east were superimposed on the map (Figure 27) and this possible historical route is in a different position to the current main route providing access to the battlefield as seen on the 1:50 000 topographic map sheet (3318 CD & DC Chief Directorate: Surveys and Mapping). From the archaeological evidence, it is possible to find out the position of a main north–

south route from Blaauwbergsvlei to Jan Mostert's farm, but according to the historical maps[26], a network of routes traversed the area, including various routes leading to the north.

The archaeological evidence has not provided clarity on the positions of individual routes but has rather provided proof of the location of the main routes. Since these routes were situated nearby, it could be suggested that the main body of the British army, specifically the Second Brigade, advanced along this route as suggested in Figure 27, and hence its position delineates a significant area of the battlefield.

Figure 28. An aerial view of a portion of the study area showing the dune field and possible historical routes indicated by the red arrows

An aerial view across the study area from the north facing south indicates the dune field to the west and possible historical routes (shown by the red arrows Figure 28). It is argued that these elongated depressions could be the remnants of historical routes that traversed the study area. It is possible that the continual use of these routes by travellers over time

[26] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

established deep tracks that are still clear. Throughout the study area, even in the densely vegetated areas, these elongated depressions occur, and they could represent the historical route network through this area.

Secondly, the most obvious difference between the historical landscape and the contemporary landscape is the change in vegetation. *Acacia saligna* or Port Jackson willow was introduced to the west coast of South Africa during the earlier parts of the 19th century to assist in the stabilising of the wind-blown dunes. *Acacia saligna* is a tree originally from Western Australia (Midgely & Turnbull 2003: 92) but became an invasive species in the Western Cape with a wide range of impacts. This is clear in the unique South African Fynbos systems where it has displaced the native species (Musil 1993: 362; Holmes 2002: 111). Three endangered vegetation types occur within the BBNR: Cape Flats Sand Fynbos (critically endangered), Cape Flats Dune Strandveld (endangered) and Swartland Shale Renosterveld (critically endangered) (Mucina & Rutherford 2006).

An alien vegetation clearing and Sand Plain Fynbos restoration programme was started on 96 hectares on the northern perimeter of the reserve. This programme included the removal of alien vegetation, the conservation and the re-establishment of indigenous fauna and flora. Unfortunately, a large portion of the battlefield and study area is still covered in alien vegetation that has altered the landscape. The historical landscape was covered in low growing shrubs, that according to historical evidence was “impenetrable brushwood” (Atkinson 1940: 76), compared to the current dense tree coverage of the *Acacia saligna*.

Thirdly, an aspect of the historical landscape that had the potential to be altered over time is the position of the dune field. Blaauwberg Hill is surrounded by dune fields, both to the east and the west. The main routes were positioned inland because a dune field is situated on the coastal side. Inland or to the east of Blaauwberg Hill is another dune field that also affected the position of the routes. These dune fields made travelling difficult and therefore the routes were commonly situated on the outskirts of the dune field.

Figure 29. An aerial view of the dune field towards the east of Blaauwberg Hill. Blaauwberg Hill is situated just out of the picture to the right. This view also shows a portion of the 96-hectare vegetation restoration programme.

An aerial view (taken from the north towards the south) of a portion of the battlefield shows the dune field (Figure 29). Covered in dense alien vegetation, the dune field is not as visible as in the cleared areas, therefore obscuring understanding of the physical aspects of the battlefield. Since *Acacia saligna* was introduced to this area to stabilise wind-blown dunes, it begs the question of how the dune field has changed since the 1806 Battle of Blaauwberg. Further, has the movement of sand covered up battle-related artefacts?

During the field surveys, the depth of retrieval of artefacts was recorded and found that it ranged between the surface and 30 cm deep. Even though the metal detectors could identify artefacts slightly deeper, few artefacts were identified at a deeper depth. Table 2 indicates the percentage of artefacts retrieved at various depth intervals and points out that a large percentage (56.5%) of artefacts were retrieved at a depth of less than 10 cm. Combining the artefacts that were identified on the surface with the artefacts retrieved no deeper than 10 cm, it shows that 71.5 per cent of artefacts were retrieved no deeper than 10 cm. Few artefacts (6% in total) were retrieved at a deeper depth than 20 cm.

Table 2. Artefact retrieval depth comparison

Artefact retrieval depth	Percentage
Surface	15%
0 cm–10 cm	56.5%
11 cm–20 cm	22.5%
21 cm–30 cm	5%
31 cm–40 cm	1%
Total	100%

The retrieval depth of artefacts could indicate the lack of penetration depth of the metal detectors used, but since artefacts were retrieved at depths deeper than 20 cm, it shows that the machines can identify artefacts at that depth. Further, the depth of the artefacts could indicate that the sand movement across the battlefield over the past 200 years was inconspicuous, as it does not appear to have influenced the retrieval of artefacts.

Even though the movement of the sand dunes through wind action was not studied as such, it can be concluded that the movement of dunes was not noticeable, and therefore their current position is like their position at the time of the battle.

6.2. Musket ball results and discussion

Of the 402 musket balls retrieved from the battlefield, 63 had sprue marks. These marks show the excess lead that was cut off during the casting process. Thirty-six musket balls had signs of indentations varying from large to slight indentations while some had multiple indentations. The source or reason for the indentation is not clear as it differs from the marks present on the impacted musket balls. These indentations could be the marks made during the ramming of the ball down the barrel of the musket. This would suggest that these

balls have been fired and not dropped. Indentations could also result from multiple balls bumping into each other during the transportation of the ammunition, or even being fired together as part of a canister shot.

A further 58 musket balls revealed scratch marks. These scratch marks could be the tooth marks of rodents gnawing on the musket ball as several marks proved to be relatively new. This was determined through the difference in colour on the ball compared to the brighter shiny surface revealed in the grooves created by the scratch marks.

Several musket balls have signs of impact and were classified as heavy impact, medium impact and slight impact. Figure 30 shows the 402 musket balls that have been analysed that reflected signs of impact. Forty-five musket balls were heavily impacted, with the ball different from its spherical form. Sixteen balls were classified as medium impact, while 46 balls were only slightly impacted. Six musket balls had a double impact, while two musket balls were completely flattened. The rest of the balls, 287 in total, showed no signs of impact.

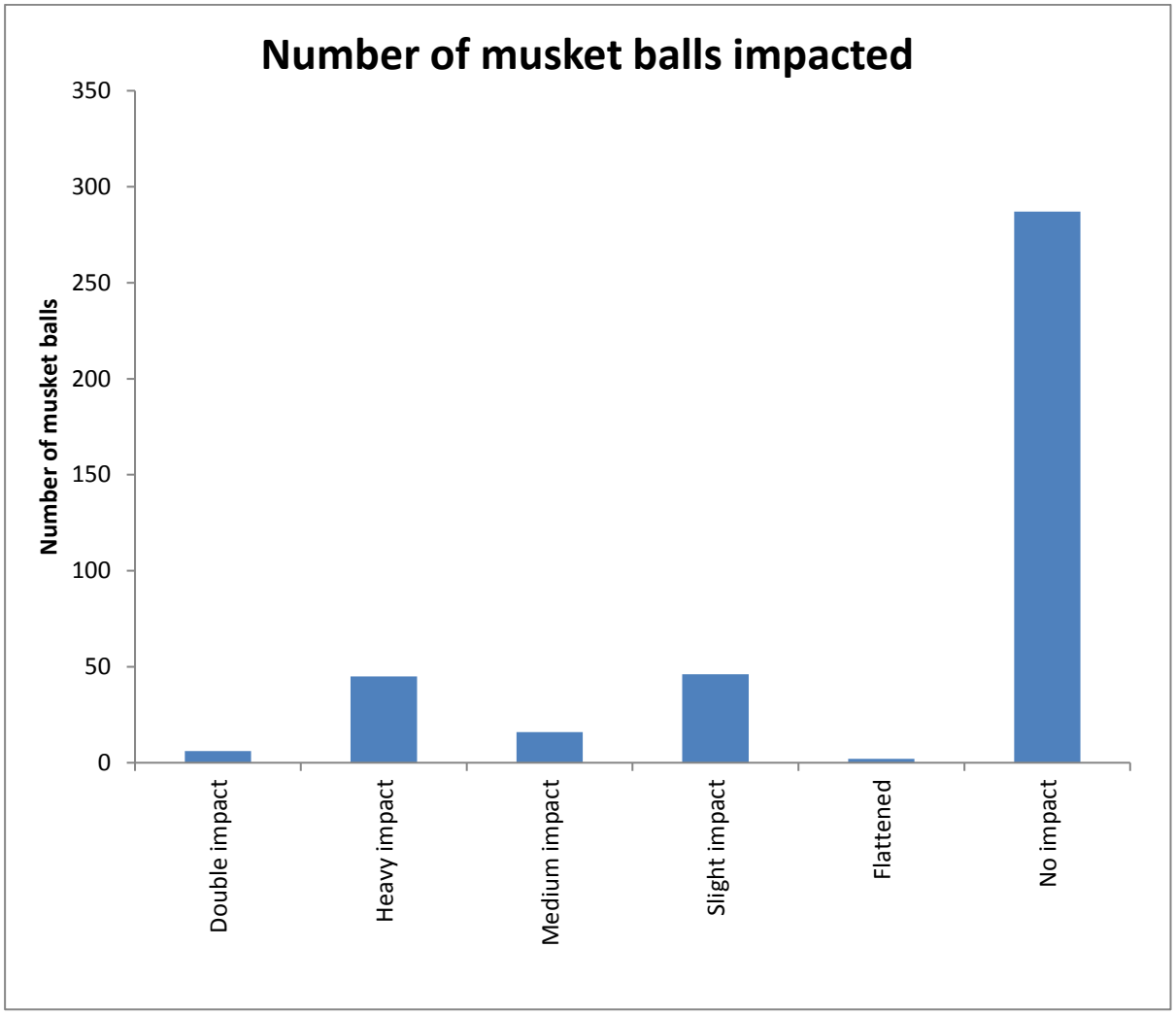


Figure 30. Number of musket balls that have been impacted

The balls that were heavily impacted, medium impacted and slightly impacted (Figure 30) could be those that struck a soldier or a horse during the battle. However, it is also possible these balls struck a hard object present during the battle, such as a cannon, a carriage, a tree trunk or even the ground. Those balls that showed no signs of impact (Figure 30), were fired but missed their targets, and subsequently came to rest on the ground without deforming.

I tried to determine which musket balls were shot and which balls were spoilt or dropped without being shot. In the haste and confusion of reloading a musket after a shot has been fired, a soldier might drop a ball without retrieving it. However, the initial results were inconclusive and have been omitted from this analysis. Further investigation into the musket balls will be conducted to distinguish between the shot and spoilt musket balls.

Six musket balls revealed a double impact (Figure 30) indicating that they may have been fired as part of a canister shot by the artillery. These balls typically reveal impacts from various sides as the other balls from within the canister have impacted them.

Two musket balls (Figure 31) proved to be interesting, as they have been completely flattened into the shape of a round disk. The purpose of this is unknown, but the owner hammered and worked the musket ball into a near perfect round disk the size of a large coin. Figure 32 indicates that both musket balls have been retrieved near the farmhouse of Justinus Keer. It is, therefore, possible that the two flattened musket balls were dropped by wounded soldiers during their treatment at the field hospital or that these musket balls were hammered and worked during the soldiers' recovery period at the field hospital.

Figure 31. Flattened musket balls

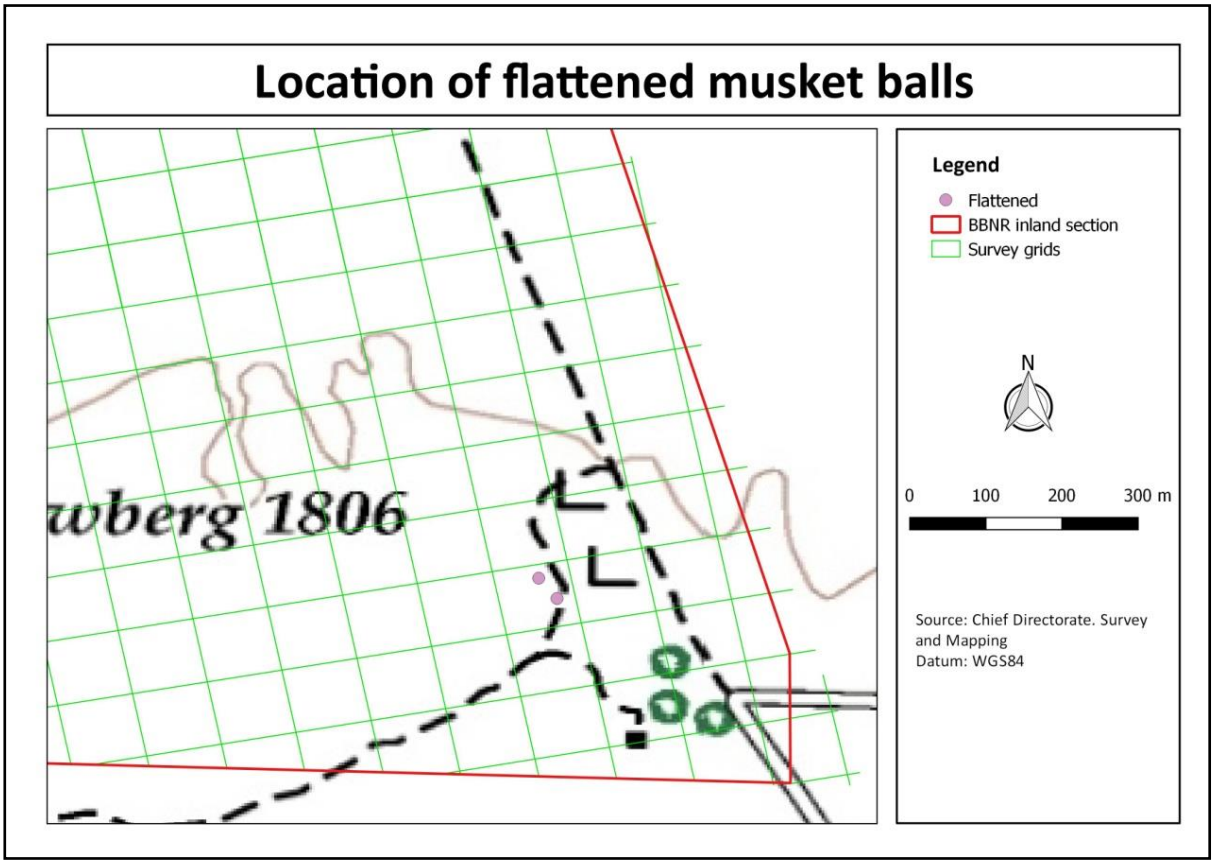


Figure 32. Position of flattened musket balls

The distribution of all the musket balls provides great insight into the battle (Figure 33). The locations of the musket balls across the battlefield and several aspects about their location warrant further discussion. Firstly, the locations indicate a concentration of balls in a relative north-south distribution. It must, however, be noted that the area towards the east of the BBNR was not surveyed as no permit was obtained to extend the survey into the adjacent areas. It is, however, clear that the distribution of musket balls, with such a high concentration near the current fence line of the BBNR, probably extends into the adjacent vacant land.

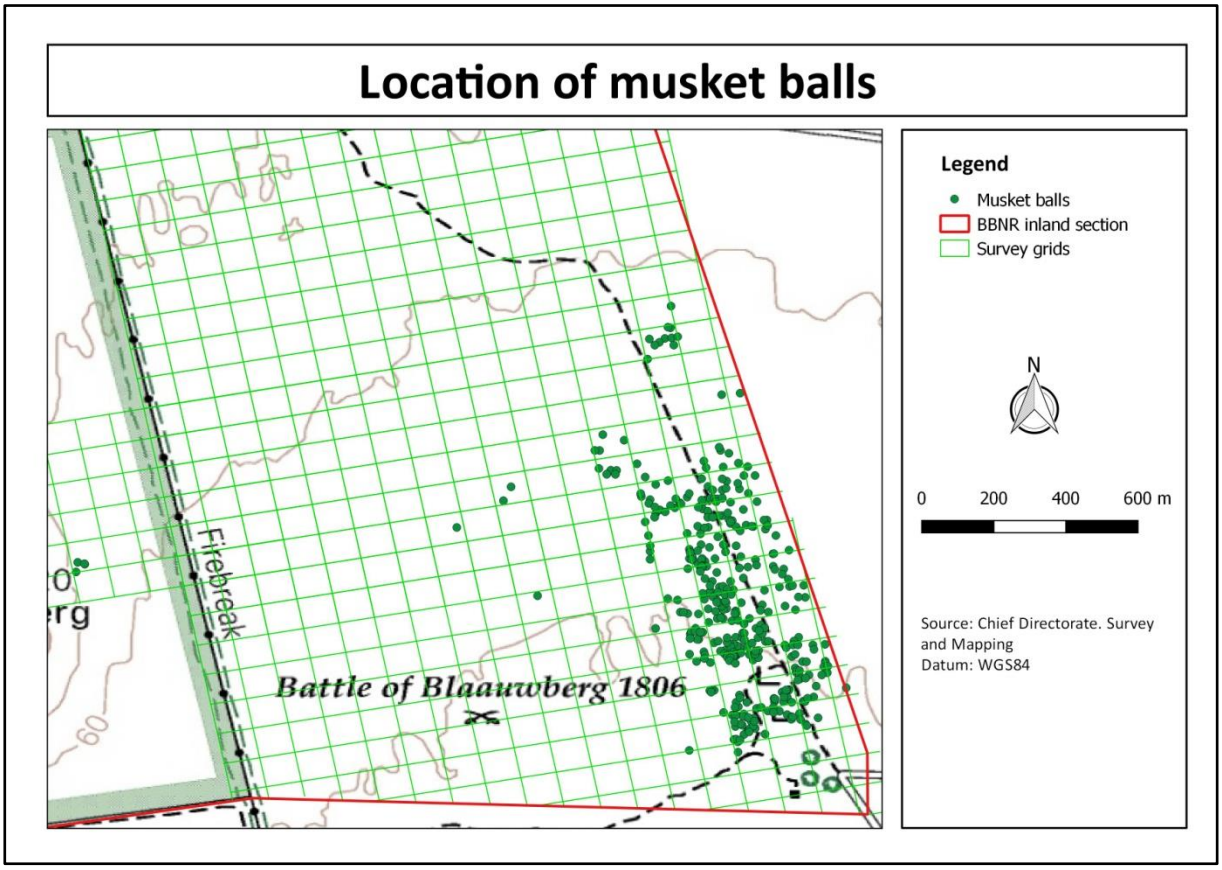


Figure 33. Distribution of musket balls

The extent of the battlefield based on the distribution of the musket balls are also revealed (Figure 33). Besides the skirmish on Kleinberg, where a couple of musket balls were retrieved, and several musket balls retrieved among the periphery of the dune field, the majority were retrieved in an area measuring 500 m x 1500 m. It is, however, unclear how far the battlefield extends towards the east. I believe the musket balls indicate where men were positioned and where the fighting occurred. Figure 34 indicates the position of the historical routes in relation to the musket balls and provides an interesting view of the battle. It appears as if most musket balls, and therefore the fighting, occurred near the major north-south routes. This could be attributed to the harsh conditions as mentioned by various British soldiers. Baird (Hook 1832: 113; Theal 1899: 272) describes the environment as "deep, heavy and dry sand, covered with shrubs, scarcely pervious by light bodies of infantry; and above all, the total privation of water under the effect of a burning sun that nearly exhausted our gallant fellows in the moment of victory; and with the greatest difficulty were we able to reach Rietvlei." Captain John Graham, in his letter to Thomas

Graham (Atkinson 1940), describes the difficult terrain they had to negotiate as very deep sand, covered with impenetrable brushwood. It is, therefore, possible that instead of maintaining the typical line formation during the British advance, they eventually funnelled into the area covered by the roads. A further possibility arises that the British Second Brigade targeted the gap in the Batavian defensive line created through the retreat of the 5th Regiment of Waldeck. This notion is further enhanced because the Batavian forces positioned the horse artillery and light dragoons on their right flank and continuously kept up a heavy fire (VC80: 34–35). Janssens further noted that the Batavian artillery influenced the British as they altered their advance because of the effect of the artillery (VC80: 30).

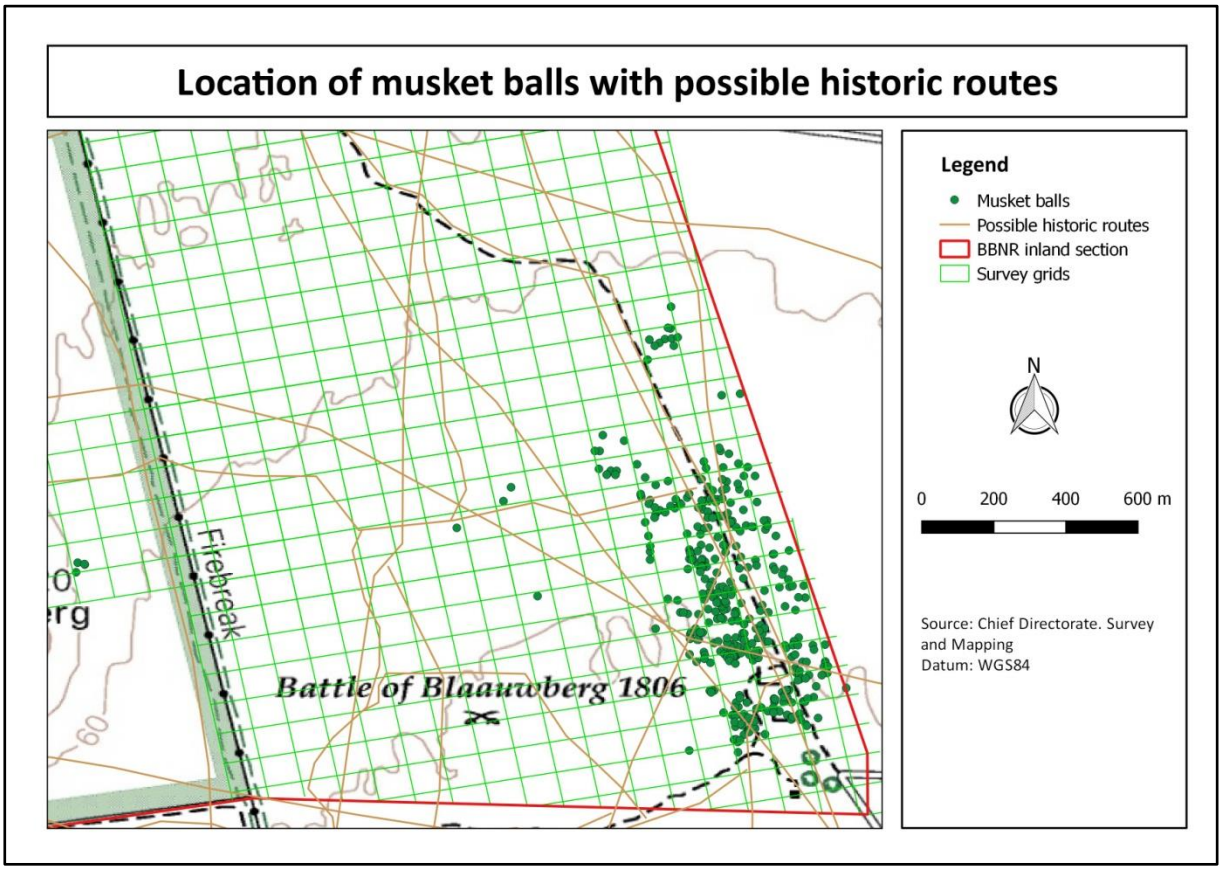


Figure 34. Musket balls with possible historical routes

Insight into the development of the battle can also be ascertained from the musket ball distribution (Figure 34). The furthest south musket balls were identified is near the farmhouse of Justinus Keer. It can be assumed that no further fighting occurred beyond the farmhouse, and it appears that the British did not pursue the Batavian forces as they retreated. Captain John Graham states in his letter that men died due to a lack of water

because of the adversity they endured. This together with the fact that the men might have been out of shape, as Krynauw (1999: 103) argues, could have led to the British not pursuing the Batavian forces (Atkinson 1940: 76).

The locations of the impacted and non-impacted musket balls provide insight into specific aspects of the battle (Figure 35). The pink indicating the heavily impacted balls, the yellow indicating medium impacted balls and the green indicating slightly impacted musket balls (Figure 35). It is evident from the distribution that fighting occurred across the whole battlefield although a couple of high concentration areas of impacted musket balls are visible.

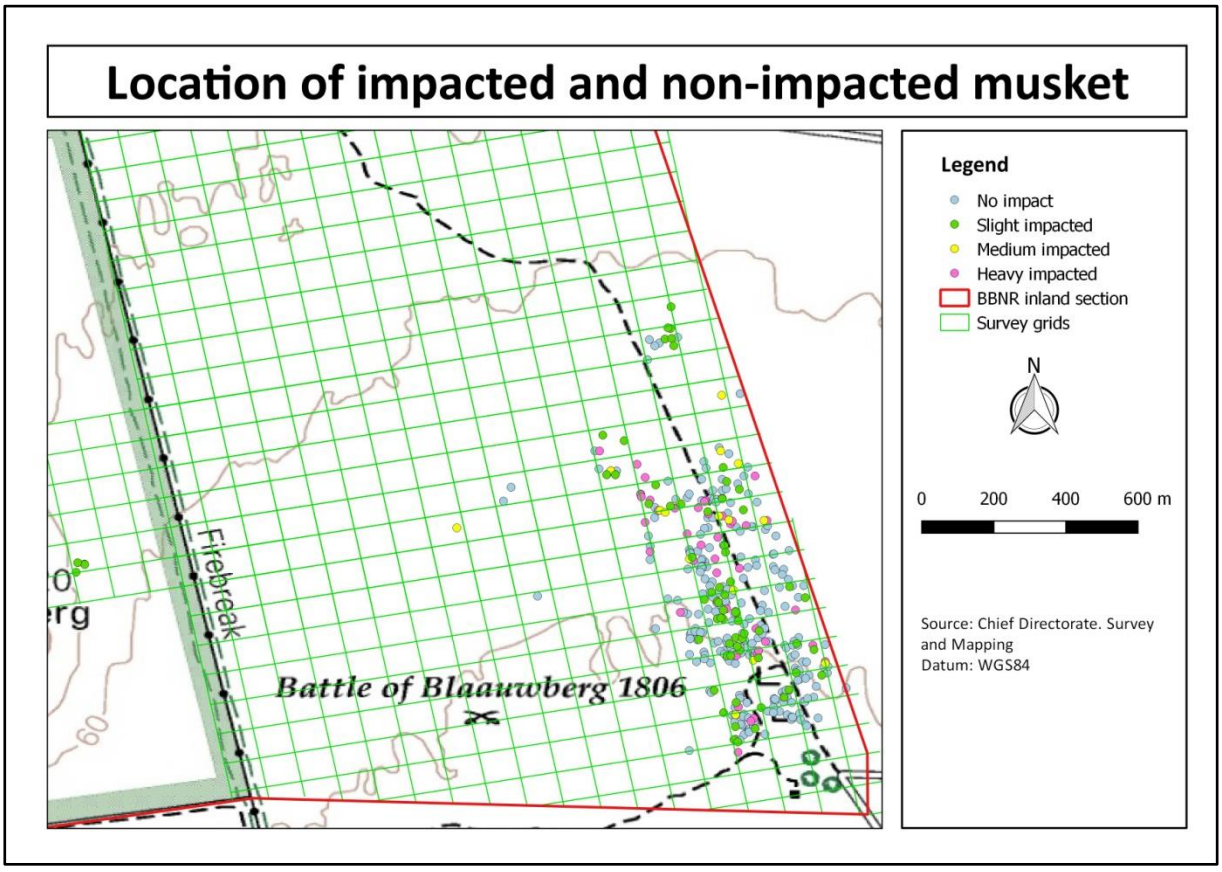


Figure 35. Distribution of impacted and non-impacted musket balls

The distribution of impacted and non-impacted musket balls is indicated, with the high concentration areas highlighted (Figure 36). Area 1 might be associated with musket balls from the field hospital area as these have probably been discarded or lost during the medical activities at the farmhouse. Both impacted and non-impacted balls have been identified in

this area. Breytenbach (2016) identified the location of the farmhouse by making use of ground penetrating radar and subsequent excavations. Through surface collection, Breytenbach also provided clarity on the use of the area surrounding the farmhouse.

Area 2 might be associated with the outspan area as this area was a well-used stopover for travellers en route from Cape Town to the north, with access to a natural spring. Although it is possible that fighting still occurred within this area, most retrieved balls probably can be associated with the men resting at the source of water.

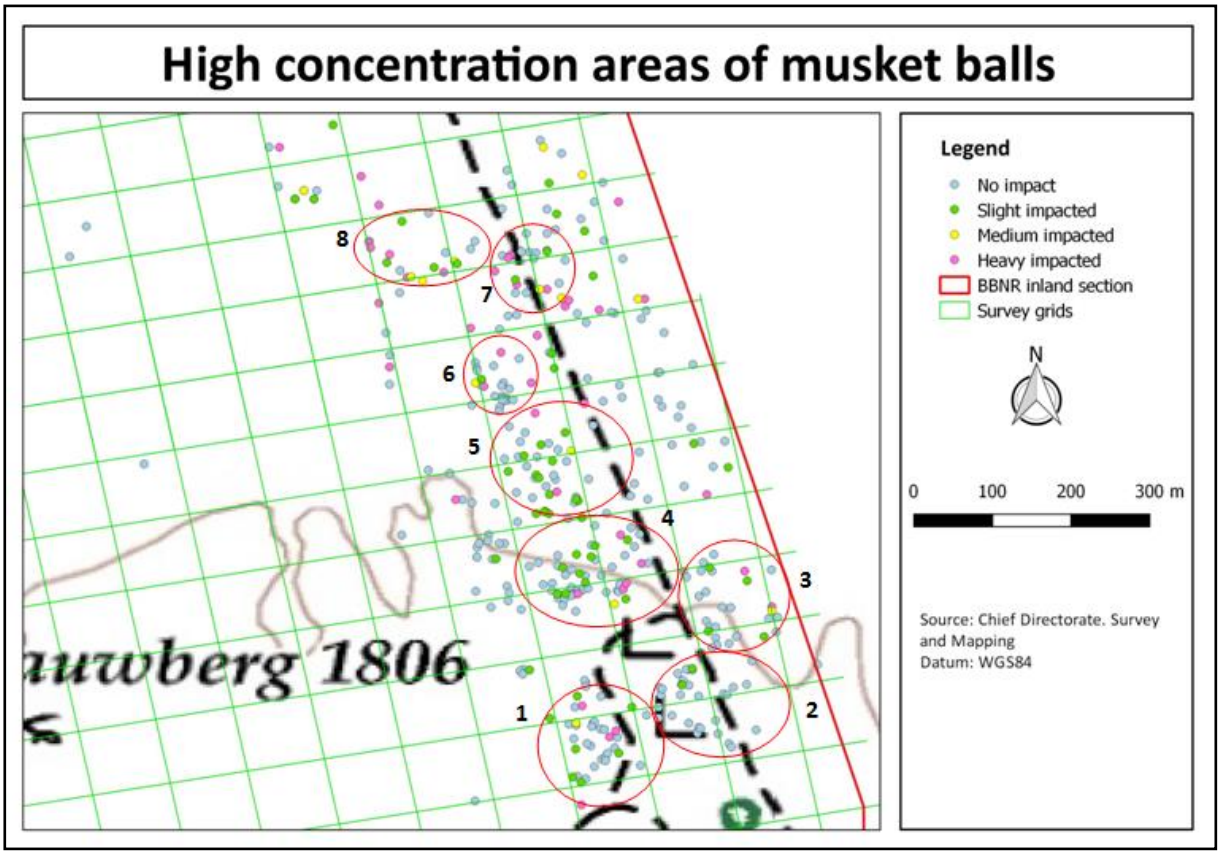


Figure 36. High concentration areas of musket balls

The areas numbered 3 to 8 (Figure 36) indicate high density areas of musket balls that could be associated with intense fighting. These areas are significant in understanding the development of the battle as it could be attributed to various groups of soldiers on the Batavian side that fought to contain the British advance. It is hence possible that while the Batavian defence was initially positioned as a single line, the fighting and resistance did not

occur along the entire line. As some troops retreated, others were holding the enemy at bay, hence creating a staggered defensive line.

To delineate the battlefield, it is important to differentiate between the different musket balls used during the battle. Since different smoothbore flintlock muskets were used, it is possible to associate a specific musket ball with the musket it was shot from and, hence, associate it with a specific group of men. After measuring all musket balls and calculating the size of the impacted balls using the 'Sivilich Formula', the sizes and numbers were plotted on a line graph (Figure 37). The musket ball sizes (in inch), the number of balls per ball size and three distinct peaks are indicated. The first and highest peak is for the ball sizes 0.69 inch to 0.71 inch and represents balls of sizes 0.69 inch with 50 balls. Size 0.70 inch with 136 balls and 0.71 inch with 43 balls. The balls that fall within this range numbered 229.

The second peak (Figure 37) represents the balls with size 0.65 inch, 13; 0.66 inch, 32; and 0.67 inch, eight. Fifty-three balls fall within this size range. The third peak (Figure 37) represents musket balls that fall within the range of 0.61 inch to 0.58 inch, and it totals 59 musket balls.

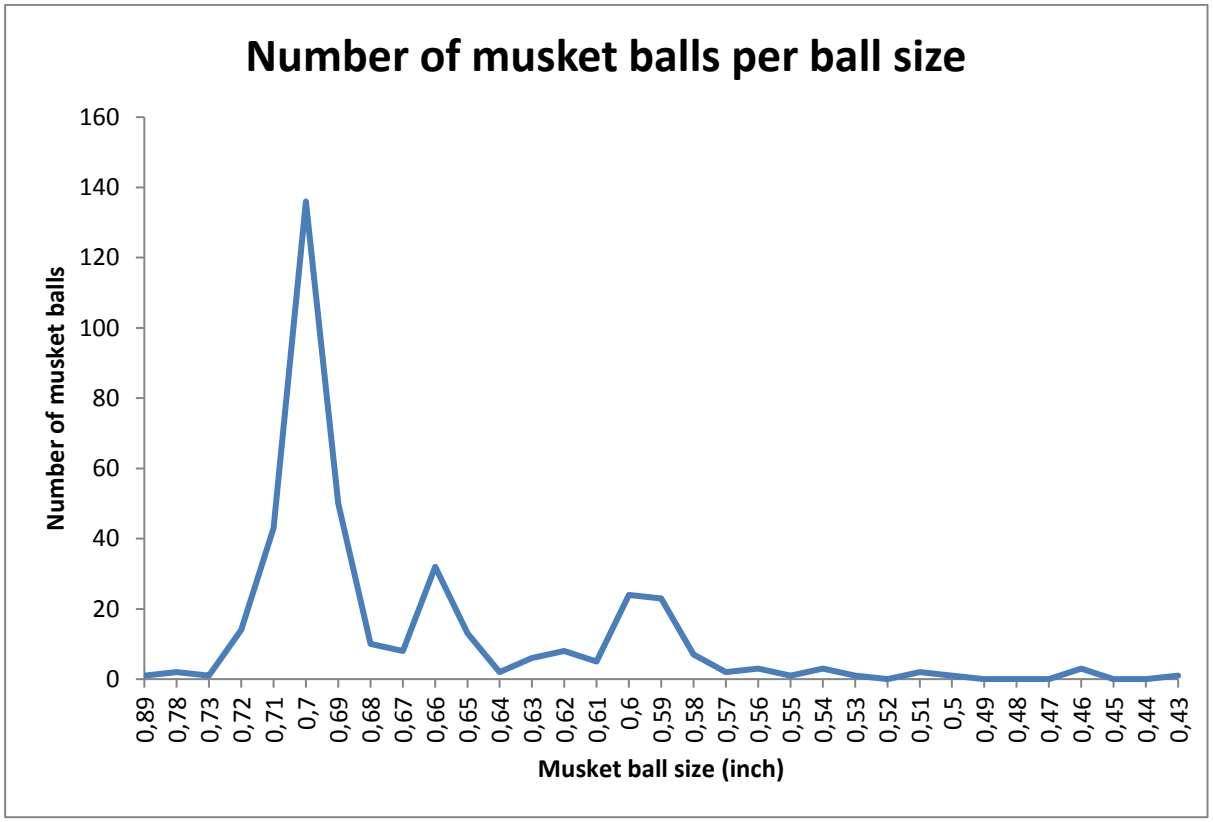


Figure 37. Number of musket balls per ball size

The challenging task of distinguishing between specific musket balls and the associated smoothbore flintlock muskets required an understanding of specific weaponry used by different groups. The British probably made use of the Brown Bess musket, which technically was the Land Pattern musket and its derivatives the Long Land Pattern, the Short Land Pattern, the India Pattern, the New Land Pattern musket and the Sea Service musket, that were introduced later. These muskets had a similar bore size and used the same ball size, a 0.69 inch musket ball (Table 3). The Baker rifle, officially known as the Pattern 1800 Infantry rifle was introduced to the service in 1801 and could have been used at the Battle of Blaauwberg in 1806. The Baker rifle had a bore size of 0.62 inch and used a musket ball of 0.615 inch (Table 3).

Table 3. Musket and rifle bore size and ball size

Musket / Rifle	Barrel size / Bore (inch)	Ball size (inch)
Brown Bess musket	0.75''	0.69''
Charleville musket	0.69''	0.63''
Potsdam musket	0.75''	0.69''
Baker rifle	0.625''	0.615''
Prussian Jaeger rifle (Hesse Kassel)	0.65''	< 0.60''

The Charleville musket, probably used by the French Marines, had a bore size of 0.69 inch and a ball size of 0.63 inch, while the rifles probably used by the Waldeck Jaegers, could probably have a bore size of 0.65 inch with the musket balls being smaller than 0.60 inch.

The distribution of musket balls that fall within the range of 0.58 inch to 0.61 inch and 0.65 inch to 0.67 inch potentially indicates the positioning of different soldiers during the battle (Figure 38). The musket balls indicated with green dots (Figure 38) appear to be situated more to the west, while the musket balls indicated with red dots appear to be situated more towards the east. This could be a sign as to the positioning of different men using different flintlock muskets. The musket balls indicated with green represent musket balls with the smaller size, namely 0.58 inch to 0.61 inch while the red dots indicate the slightly larger musket balls with a ball size of 0.65 inch to 0.67 inch.

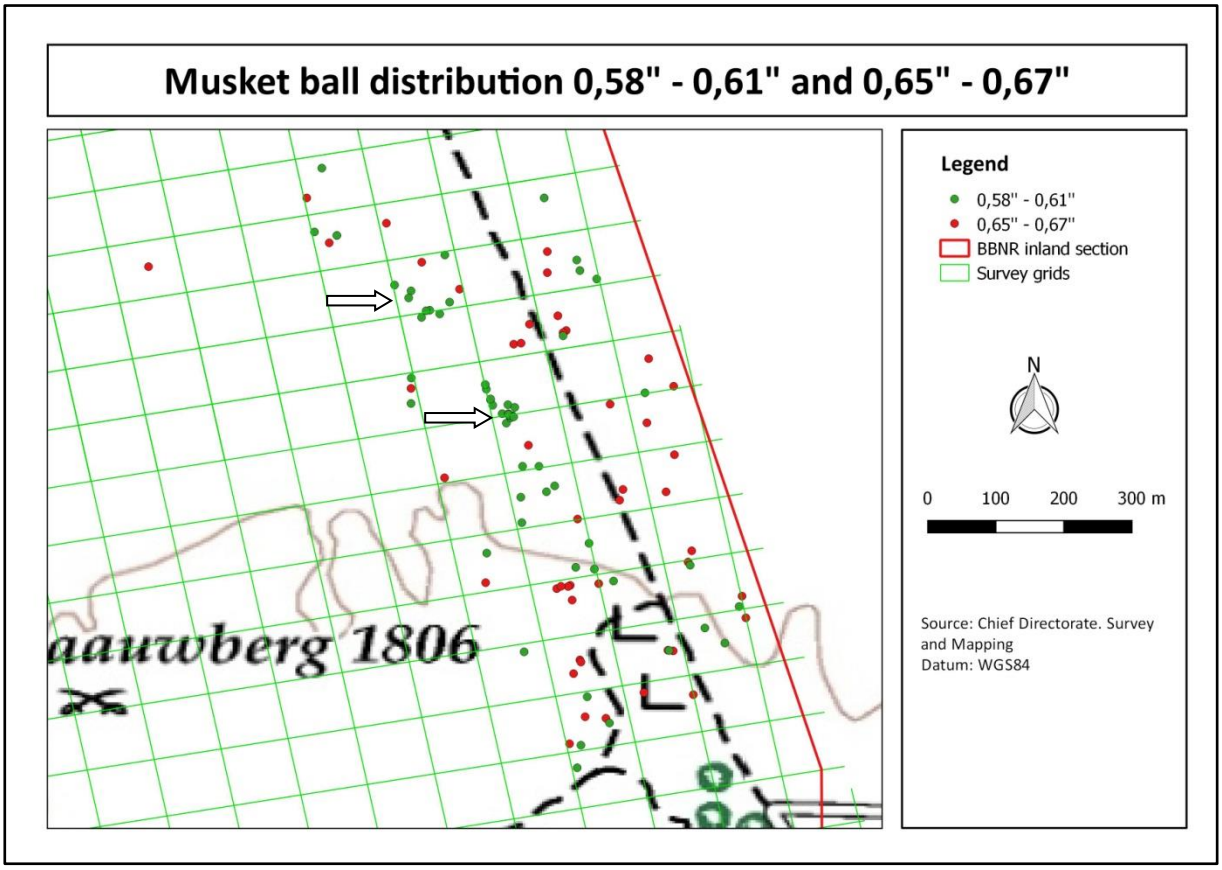


Figure 38. Musket ball distribution indicating musket balls sizes 0.58'' - 0.61" and 0.65'' - 0.67"

Two high density areas of musket balls are visible (Figure 38 indicated by the two arrows), and probably indicate areas where heavy fighting occurred. It represents how the Batavian soldiers held out against the onslaught of the British forces, but also indicates how they retreated systematically, staggering their defence.

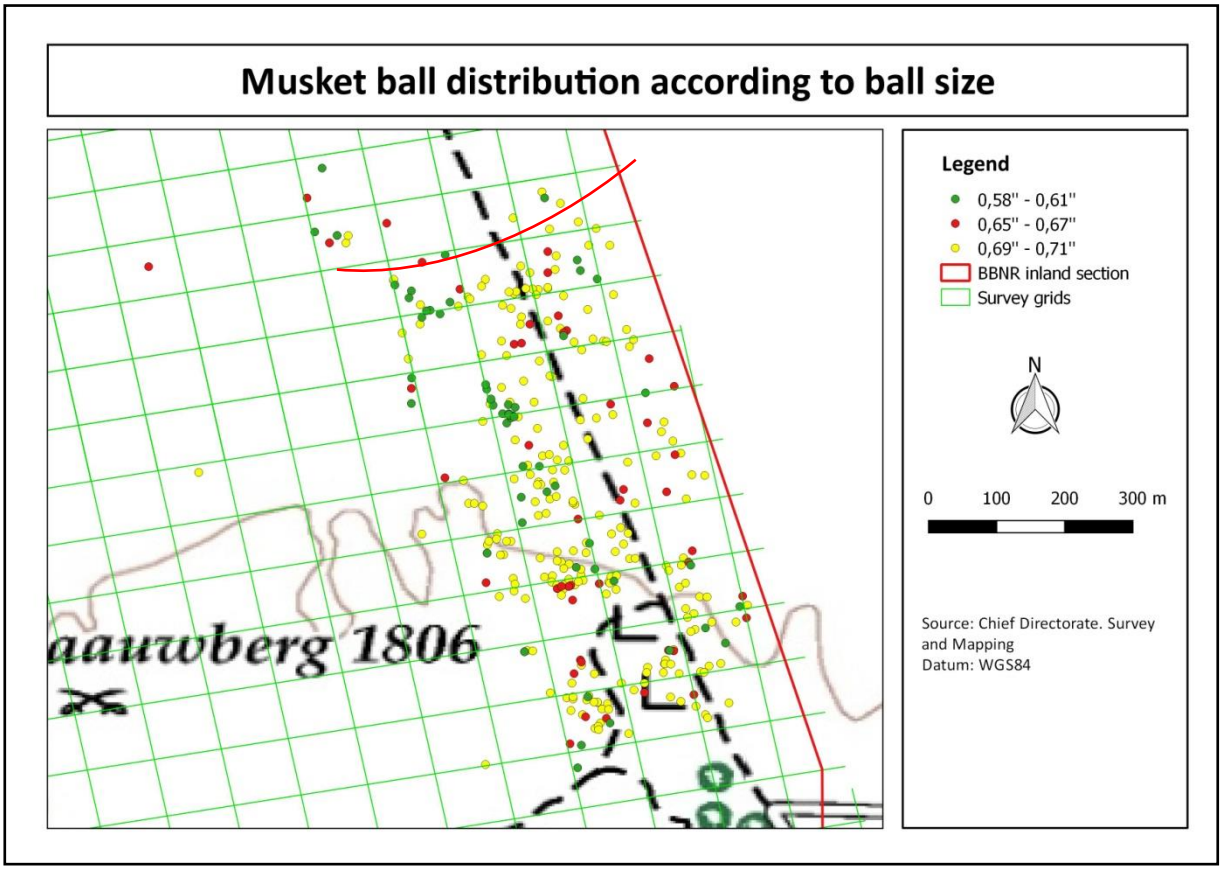


Figure 39. Distribution of various sizes of musket balls

The distribution of all three identifiable musket ball sizes according to Table 3 are seen in Figure 39. The yellow dots indicate the musket balls of size 0.69 inch to 0.71 inch. Unfortunately, these musket balls cannot be exclusively linked to the British muskets but are also possibly linked to other muskets. The distribution, therefore, does not indicate the positions of specific soldiers, but rather indicate the battle development during the encounter.

The distribution of the musket balls of size 0.6 inch to 0.71 inch (Figure 39) shows a relatively uniform distribution across the battlefield, with high density areas occurring. These musket balls appear from the red curved line (Figure 39) southwards. This probably indicates the furthest north the Batavian defensive line was positioned, and all subsequent fighting occurred from this point southwards. Further, the distribution illustrates various high density areas indicating positions where heavy fighting occurred. The high density areas appear to be staggered from the original Batavian position, near the red curved line (Figure 39), southwards, indicating a staggered Batavian retreat.

6.3. Cannon projectiles results and discussion

Fifty-seven cannon projectiles were retrieved from the battlefield of the 1806 Battle of Blaauwberg. Forty-two spherical cannon balls were retrieved, while 15 shell fragments accounted for the cannon projectile assemblage.

The weight of the 15 cannon shell fragments ranges from 77.5 grams, the smallest, to 734 grams, the largest (Figure 40) and depended on the relative size of the fragment. The larger the fragment the heavier its respective weight. From Figure 40, it can be deduced that at least four of the fragments are relatively large fragments that will fit in the palm of a man's hand. The lighter fragments are much smaller, but substantial enough to cause a huge impact on its target.

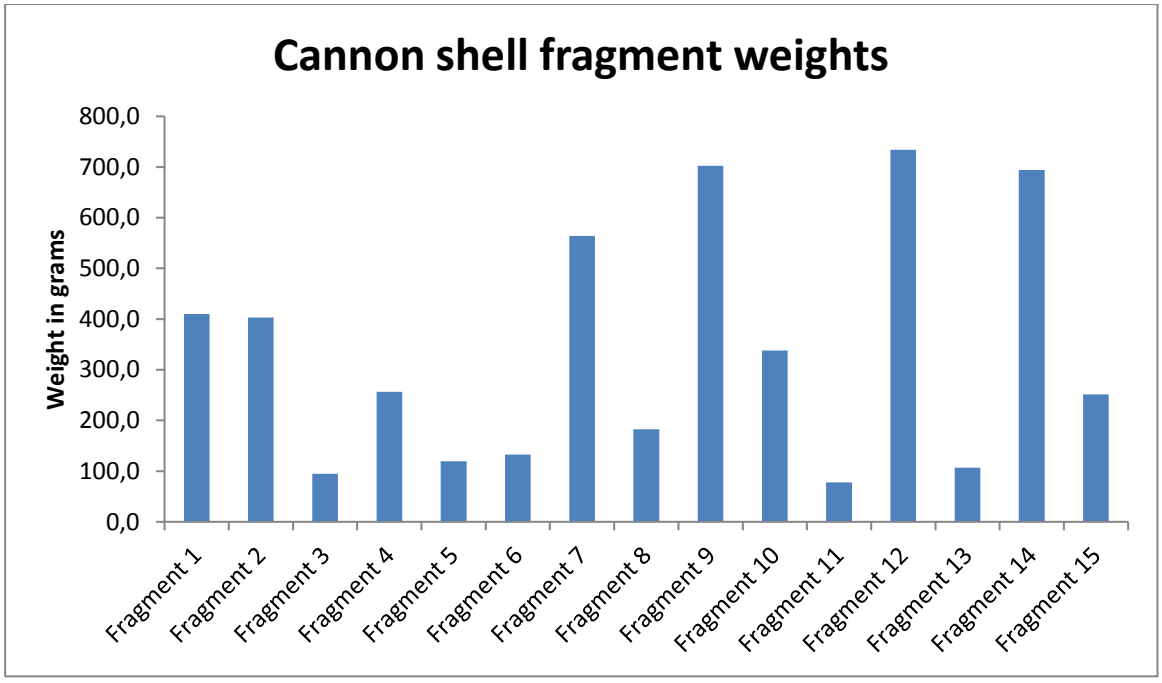


Figure 40. Cannon shell fragment weights

The cannon shell fragments are all cast iron fragments prone to corrosion and thus hinder accurate measurements of the original size. It was concluded that the shell fragments all concur with the howitzer common shell, but the origin is unclear. Since both British and Batavian artillery had at its disposal two howitzers, further investigation into the shell fragments is required to be able to clarify their origin. By studying the cannon shell fragment distribution map, clarity about the origin of the shell fragments could be assumed.

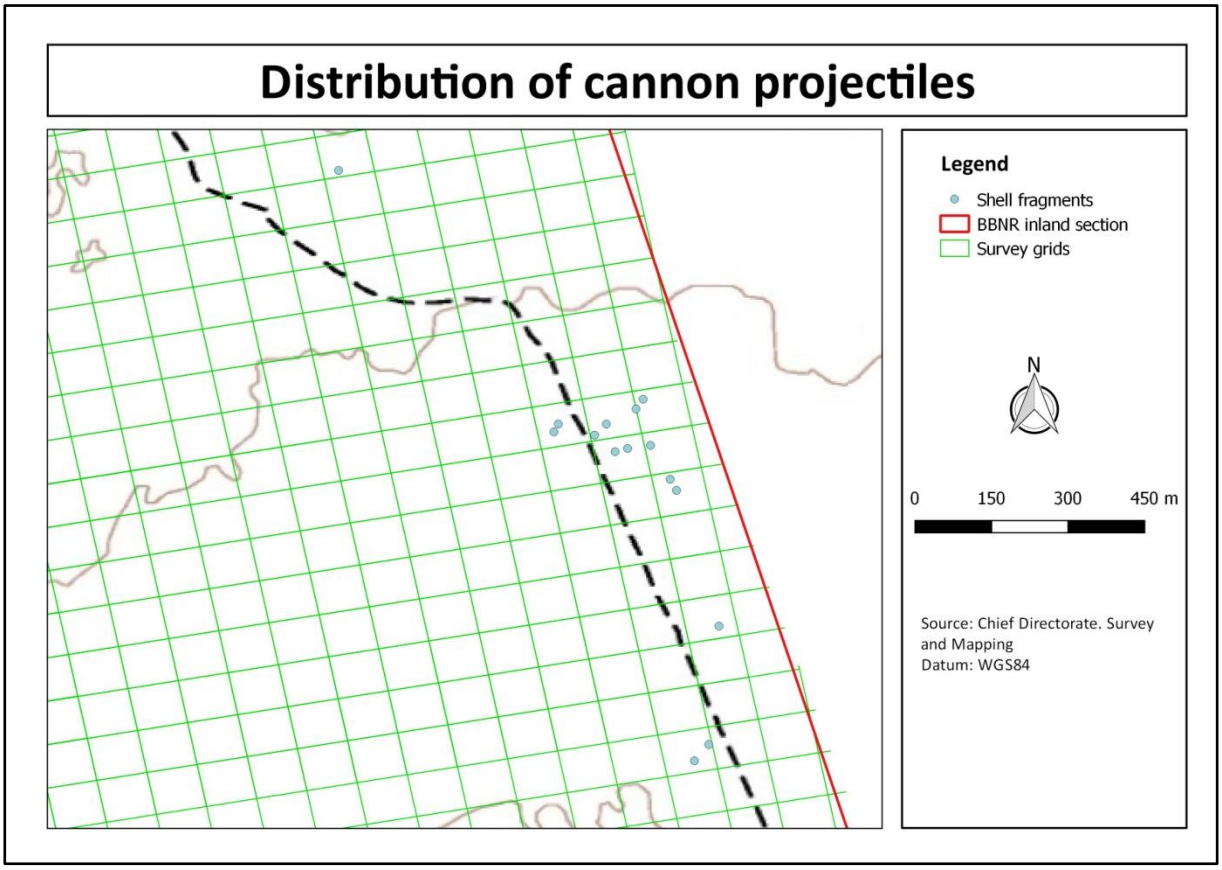


Figure 41. Cannon shell fragment distribution

The locations of the 15 retrieved cannon shell fragments are indicated and offers several aspects for discussion (Figure 41). Firstly, 11 shell fragments occur in a relatively small area while a single shell fragment occurs far north, and three more fragments are located further to the south.

Merely by analysing the above-mentioned locations of shell fragments (Figure 41) the single shell fragment to the north is unlikely to be of British origin, as this area is situated on a rise where the British most probably positioned their own howitzers. It is therefore possible that the single shell fragment originates from a Batavian howitzer common shell fired from the Batavian artillery positions and aimed at the British artillery position. Unfortunately, no other shell fragments were identified during the surveys in this area (Hutten 2015).

According to Adye (1804: 156), the extreme range of a 24-pounder howitzer would be 1390 yards to 1745 yards, which, converted to metres, translates to 1270 metres to about 1600 metres.

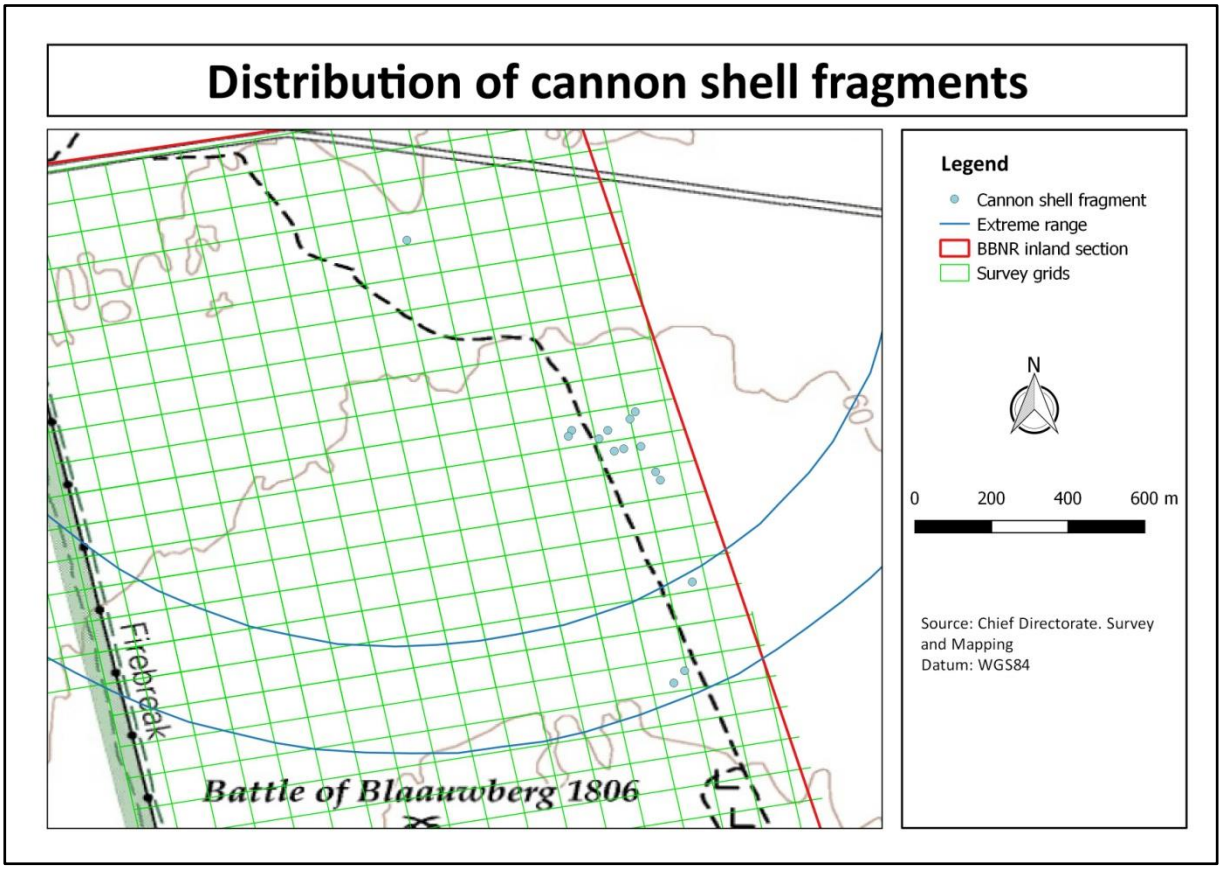


Figure 42. Cannon shell fragment distribution indicating the extreme ranges of the howitzer (the blue curved lines)

The extreme range of a howitzer measured from the single shell fragment southwards was measured and the two curved blue lines indicate 1270 metres and 1600 metres respectively and could point towards a possible location of at least one of the two Batavian howitzer positions (Figure 42). If the furthest south curved blue line indicates the extreme range of the howitzer, it suggests that the Batavian defensive line would not have been positioned much further south than the indicated position.

Identification of the shell fragments to determine their origin proved to be inconclusive since the size of the shell fragments and level of corrosion affected the accuracy of the measurements. The difference in size is negligible and the origin could not be determined with certainty. Should the 11 shell fragments near one another be of British origin, it might indicate the position of the Batavian defensive line and the position of the 5th Regiment of Waldeck. General Janssens, in his report, referred to the first British howitzer shells that landed on the right wing of the Waldeck Regiment and caused more confusion than he had

expected (VC80: 29, 30). Should this be the case, it places the Batavian defensive line less than 800 metres from the British initial positions. The Batavian artillery had a much greater effect on the battle through its proximity, than from what we can gather from the historical documents.

Further, in between the location of the shell fragments, many other cannon projectiles were identified that point rather to Batavian origin than British origin. Based on the location of these shell fragments, they are more likely to be of Batavian origin than British origin. Further studies will be conducted on the shell fragments to clarify their origin and will include an investigation into the composition of the material used to cast the shells.

If the 11 shell fragments prove to be of Batavian origin, as is more likely, this offers insight into the development of the battle and the route the main body of the Second Brigade followed during their advance towards the Batavian defensive line. It also provides an indication of the position of the Batavian artillery.

Firstly, the Batavian howitzers would have aimed at a target much closer than the extreme range discussed above, and by using common exploding shell would create carnage among the British infantry on their advance. The howitzers were positioned towards the right flank of the Batavian defensive line between the 9th Regiment of Jaegers and the 22nd Regiment of Infantry and would fire the shell at the infantry at around 500 metres. As the Batavian troops retreated, the artillery would also fall back, but continue their fire at the advancing British troops, possibly resulting in the three shell fragments that were located further south.

These three shell fragments situated to the south could also be of British origin. There is a possibility that they represent the howitzer shells aimed at the centre of the Batavian defensive line. Should this be the case, then this position shows the position of the 5th Regiment of Waldeck, but also the north-south and east-west distribution of the Batavian defensive line. The cleaning of these shell fragments, to remove the layer of corrosion, and the subsequent measuring might clarify their origin.

The spherical cannon projectiles were weighed and measured to determine their original size and then to conjecture the specific cannon that fired them and subsequently their origin

as either Batavian or British. Forty-two cannonballs were analysed, but once again, the accuracy of the measurements was affected by the level of corrosion. The different weights of the spherical cannon projectiles are indicated and gives an indication as to the different ball sizes used in the artillery (Figure 43).

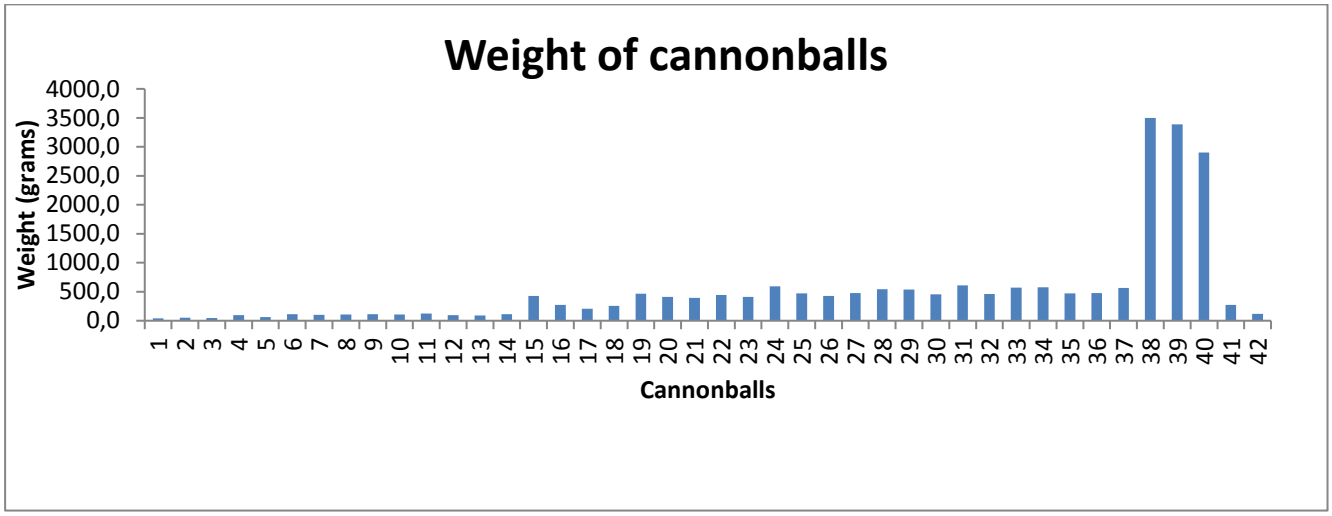


Figure 43. Weight of cannonballs

The cannonballs could provisionally be classified into three weight classes; those light, up to 122.5 grams; those between 200 grams and about 600 grams and lastly the heavy balls exceeding 2500 grams (according to Figure 43). It should, however, be taken into consideration that the British had at their disposal the howitzers and the light 6-pounder field cannons, while the Batavian artillery comprised 1-pounder, 3-pounder, 6-pounder cannons and 24-pounder howitzers. Except for the 1-pounder cannon, which only fired solid shot, the 3-pounder and 6-pounder cannons would fire both solid shot and grapeshot, while the howitzers could also be fired with grapeshot. This resulted in six potential different ball sizes across the battlefield.

From Table 4 and the variety of cannonballs, it can be construed that a simple division of the cannonball sizes is not possible. Both the weight and the ball size need to be taken into consideration before establishing the association of a ball with a specific cannon (Adye 1804: 225–257).

Table 4. Cannonball sizes according to Adye (1804: 255-257)

Cannon	Type of shot	Weight (lbs / oz)	Diameter (inch)
1-pounder	Solid / round shot		1,92''
3-pounder	Solid / round shot		2,775''
	Grapeshot	4 oz	
6-pounder	Solid / round shot		3,498''
	Grapeshot	8 oz	
24-pounder	Grapeshot	2 lbs	

Six different cannonball types were identified from the assemblage of spherical cannon projectiles, while three could not be associated with specific cannons (Figure 44). It must be noted that some cannonballs might have been so corroded that the ball had lost material and therefore its weight might have been less, although according to its size, it could still be associated with a specific cannon. Further, should the identification of a specific ball be troublesome, it was decided to associate it with similar balls within the range of its measurements. By doing this, the unidentifiable balls were fewer and the locational analysis more conclusive.

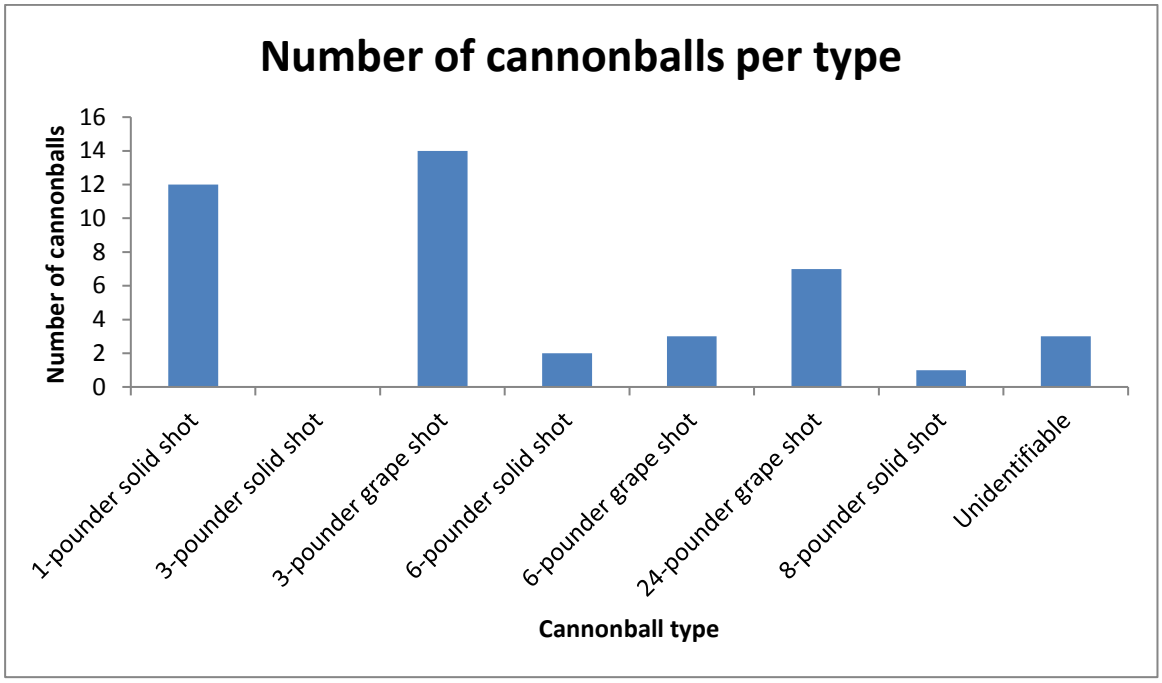


Figure 44. Number of cannonballs per type

Twelve balls could probably be associated with 1-pounder solid shot, 14 balls associated with 3-pounder grapeshot, two with 6-pounder solid shot, three could probably be associated with 6-pounder grapeshot, while seven balls could be from 24-pounder grapeshot. One cannonball was measured and weighed and is likely to be an 8-pounder solid shot. Since no 8-pounder cannons were part of the battle, and the specific cannonball was identified near a historical homestead against the slopes of Blaauwberg Hill, it was decided that it bears no significance to the battle. Probably, the inhabitants of the homestead brought in this cannonball from elsewhere well after the battle in 1806.

Five projectiles can be associated with 6-pounder cannons, of which two are solid shot and three could be grapeshot. Either their association could be of British or Batavian cannons as both had 6-pounder cannons at their disposal.

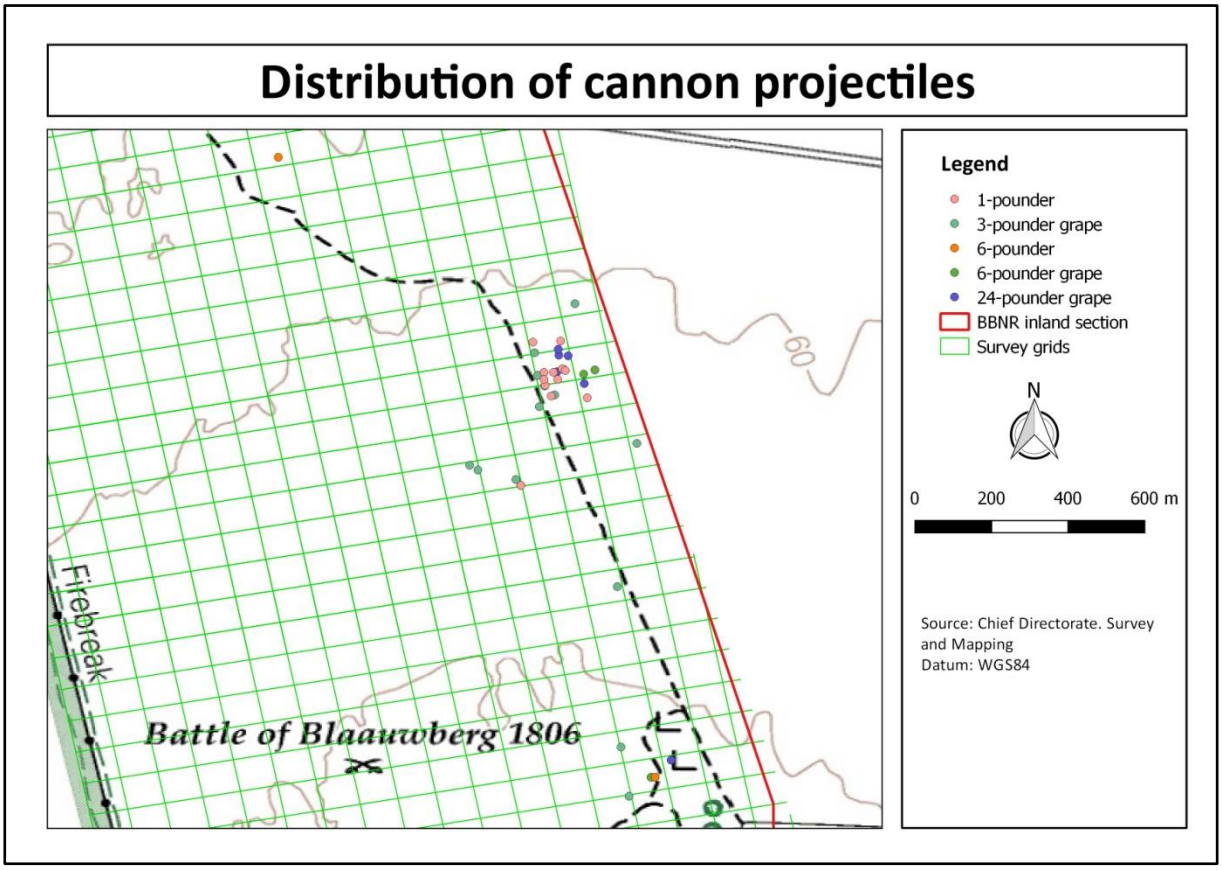


Figure 45. Distribution of all spherical cannon projectiles

The distribution of all the spherical cannon projectiles is shown and indicates a high density area significant in the discussion of the cannonballs (Figure 45). The distribution maps for each individual cannonball class (Figure 46, Figure 47, Figure 48, and Figure 49) demonstrate similar patterns for each cannonball type. The high density area of cannonballs overlaps with the high density area for the cannon shell fragments and indicates an area targeted by the artillery. It is therefore likely that the 6-pounder cannonballs were fired from Batavian cannons and not from British cannons since the 6-pounder cannonballs are located among the other projectiles.

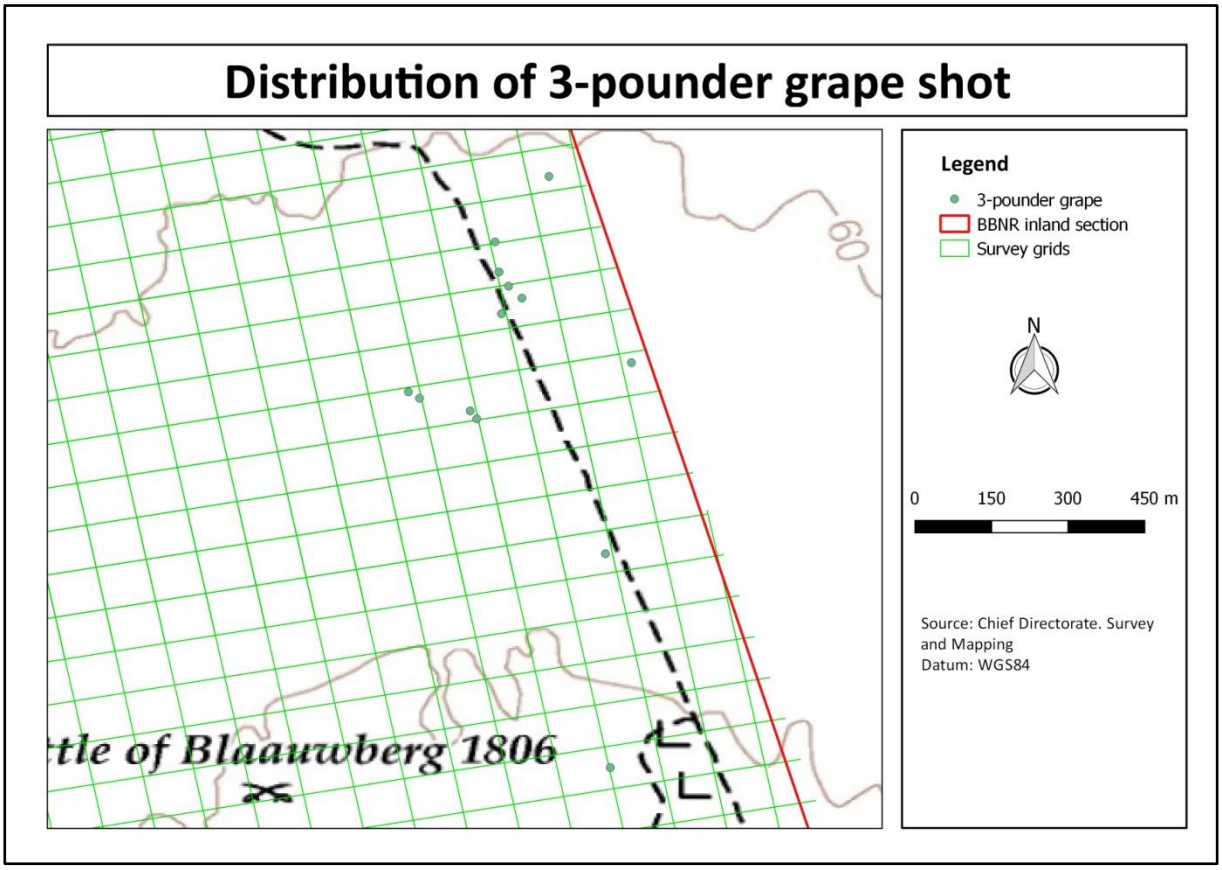


Figure 46. Distribution of 3-pounder grapeshot

The 3-pounder grapeshot distribution (Figure 46) indicates a high density area towards the north and several shots distributed towards the south. Two 3-pounder cannons were active on the battlefield and associated with the horse artillery on the right flank of the Batavian line (VC80: 26; Van Oordt 2017: 47). Lieutenant Pelegrini oversaw this unit and fired at the British advancing troops from the east. General Janssens commented that he had to order this unit to vacate their positions as they still fired at the opposition after the retreat was ordered (VC80: 35). This could explain the distribution of cannon balls from the high density area southwards, because the horse artillery unit was firing at the British troops even after they had passed their positions.

Pelegrini's Horse Artillery towards the right wing of the Batavian line was situated outside the current study area and boundary fence of the BBNR. The high density distribution of artefacts identified near the fence line suggests that the battlefield extends beyond the fence line. Therefore, Pelegrini's position would also be situated towards the east of the fence line.

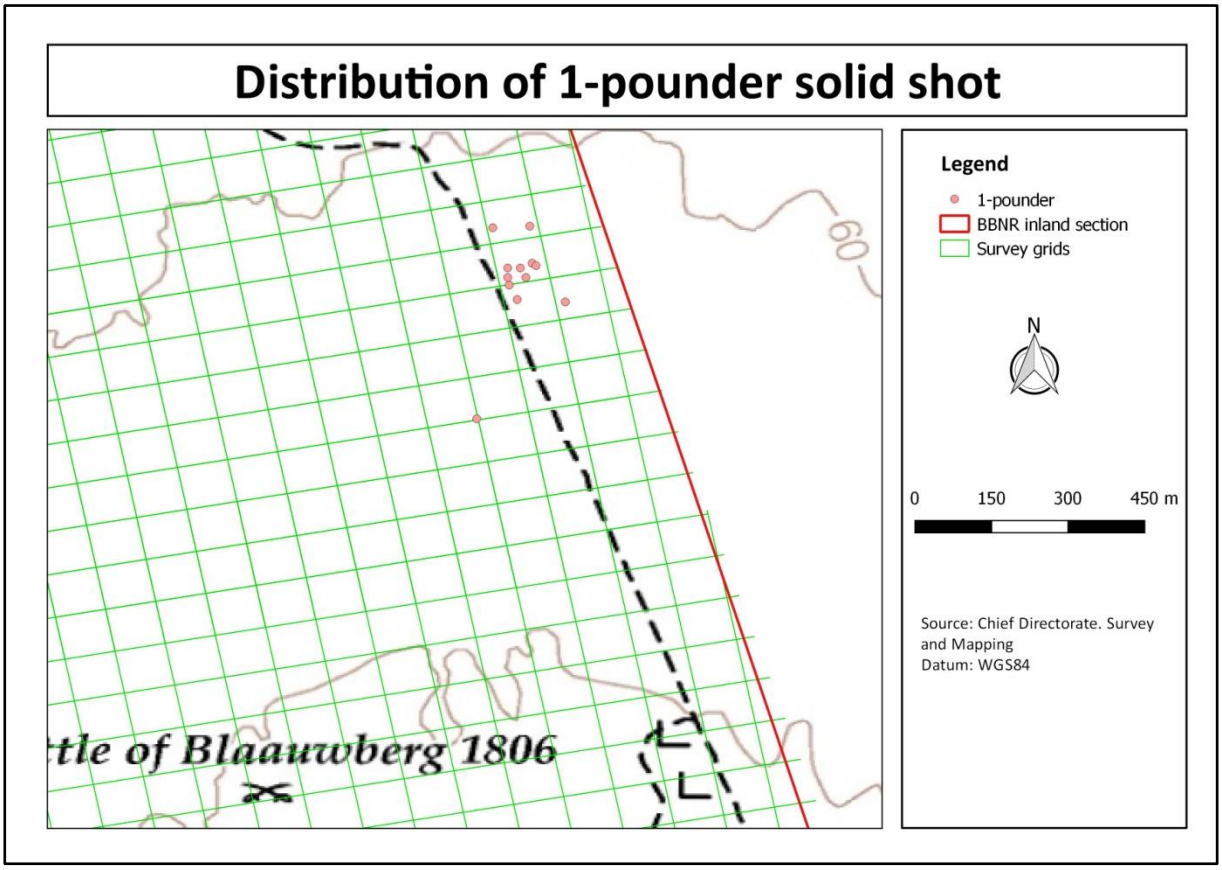


Figure 47. Distribution of 1-pounder solid shot

Twelve possible 1-pounder solid shots were identified, and the distribution is illustrated in Figure 47. The distribution, like the distribution of the other cannon projectiles, indicates a high density area and a single shot towards the south. The Batavians had six 1-pounder cannons manned by the Javanese Artillery and positioned between the Hottentot Light Infantry and the Jaegers of Waldeck (VC80: 26; Van Oordt 2017: 47). Exactly where the Javanese Artillery was positioned can be calculated taking into consideration the number of men standing side by side in every regiment. From this calculation, the length of the Batavian defensive line could be determined. The accuracy of this method is debatable as the fluid nature of the event over 200 years ago and the diverse circumstances need to be taken into consideration, but it provides an indication where the different regiments might have been situated. This means that the high density area of 1-pounder cannonballs is situated slightly to the northeast from where the Javanese Artillery was positioned. From the high density area of cannonballs, it suggests that the Javanese Artillery and the horse

artillery were aiming at the same target, most probably the centre of the advancing British Second Brigade.

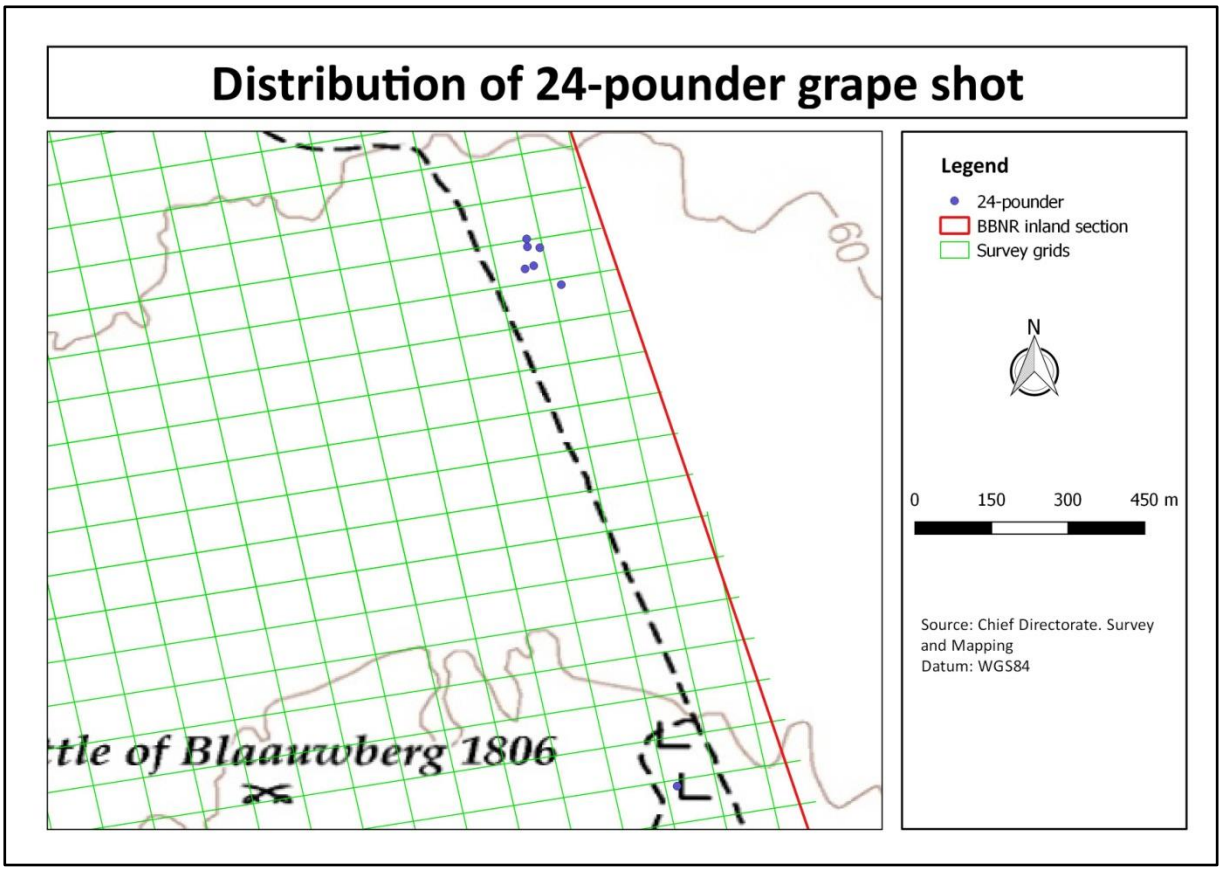


Figure 48. Distribution of 24-pounder grapeshot

The distribution of seven probable 24-pounder howitzer grapeshot is indicated and, like the rest of the cannonball distribution, shows a high density area and a single shot towards the south (Figure 48). The howitzers of the 5th Artillery Regiment were positioned towards the right flank of the Batavian defensive line between the 9th Regiment of Jaegers and the 22nd Regiment of Infantry (VC80: 26), although General Janssens also mentions they could have been moved as required. Their initial position would place them in between the Javanese Artillery to their west and the mobile horse artillery to their east. It is therefore foreseen that they would fire at a target straight ahead of them. But, taking into consideration the development of the battle and the initial setup of the Batavian defensive line, it is argued that, with the early collapse of the 5th Regiment of Waldeck, and the subsequent apparent weakness created in the defensive line, the British Second Brigade might have steered away from the threat of the horse artillery and the light dragoons on the Batavian right flank. The

opening created in the defensive line, through the collapse of the 5th Regiment of Waldeck, might have been the target the British Second Brigade aimed for. It would, therefore, be possible that the 5th Artillery Regiment fired at a target slightly to the west of north. Once they withdrew, similarly as discussed above, they continued to fire at the enemy to ensure a safe retreat.

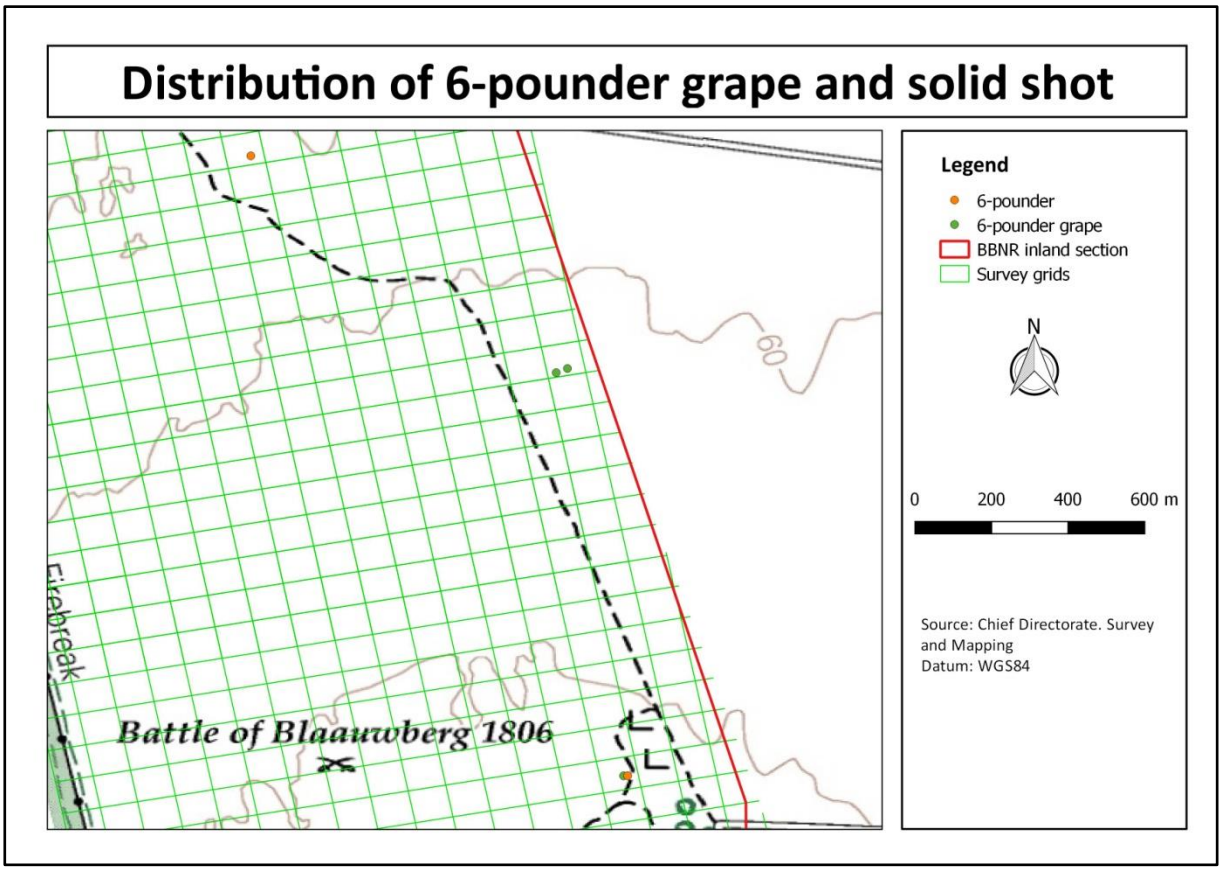


Figure 49. Distribution of 6-pounder grapeshot (green) and 6-pounder solid shots (orange)

The distribution of both the 6-pounder solid shot and the 6-pounder grapeshot are shown, as two 6-pounder solid shot and three 6-pounder grapeshot have been identified on the battlefield (Figure 49). It is believed that, because of their specific locations, they are of Batavian origin. Firstly, the grapeshot was identified in the same high density area as both the 3-pounder and 1-pounder cannon projectiles, suggesting they were fired at the same target. Secondly, the distribution southwards is like the distribution of the other Batavian cannon projectiles, suggesting that they were fired from a position further south than their original positions. They fired at the enemy during their retreat, to ensure a safe departure. Thirdly, the single 6-pounder solid shot far north was retrieved near the single 24-pounder

howitzer shell fragment in a location believed to have been that of the British 24-pounder howitzers. It is therefore suggested that the 6-pounder shot was aimed at the British artillery (Hutten 2015). According to Adye (1804: 158), the extreme range of a light 6-pounder cannon was between 800 to 1300 yards, which equates to roughly between 730 to 1200 metres, which from the suggested 5th Artillery and the Javanese Artillery position was possible.

Both the 5th Artillery and the Javanese Artillery had 6-pounder cannons, and it is therefore not possible to determine that the retrieved 6-pounder solid shot, aimed at the British artillery position, was fired from the Javanese Artillery or from the 5th Artillery. Although the Javanese Artillery, because their position on the battlefield was more towards the west than the 5th Artillery, could have aimed at the target almost straight ahead, the 5th Artillery also aimed at this target with the 24-pounder howitzers at their disposal. Any of these units could have been the origin of the single 6-pounder solid retrieved from this area.

The association of the 6-pounder cannonballs with the Batavian cannons was solely made based on the location near the other cannon projectiles that cannot be confused with British cannon projectiles. This makes for an interesting aspect about the battle – the absence of any retrieved British light 6-pounder cannonballs. The absence of the artefacts can be because it was not identified and not necessarily because of their non-presence. Due to the lack of horses, men had to draw the light 6-pounder field cannons through the thick sand and impenetrable brushwood (Hook 1832: 113; Theal 1899: 272; Atkinson 1940: 76). It is possible that the troops advanced in front of the cannons. The artillery could not fire over the heads of their own troops and explains the absence of British 6-pounder shot. However, it must also be taken into consideration, that despite accurate and concise reporting thereof (VC80: 26), fired British howitzer shells have not been identified and retrieved on the battlefield.

General Janssens stated that cannons were occasionally moved to where they were required, suggesting that one cannon might have been moved towards Kleinberg (VC80: 26). Graham also noted that the Batavian artillery positioned one cannon near Kleinberg (Atkinson 1940: 76). From the archaeological evidence retrieved from the Kleinberg area, it

was not possible to determine the exact location of the Batavian cannon near Kleinberg. Even though no cannon projectiles were retrieved from this area, the metal canister casing was identified. It is likely that the canister was fired from a Batavian howitzer positioned slightly to the east of Kleinberg.

6.4. Button collection results and discussion

6.4.1. Button classification

From the 182 retrieved buttons, 11 distinctive classes were identified during the button classification based on distinct characteristics. Further or finer classification yielded 34 groups with 62 different identified button sub-groups (Table 5).

Table 5. Button collection from the 1806 Battle of Blaauwberg

	Class description	Sub-groups	Number of buttons	Percentage of total
Class 1	One-piece buttons, four eyes	8	28	15.4
Class 2	Two-piece domed buttons	3	7	3.8
Class 3	Three-piece domed buttons	2	7	3.8
Class 4	Three-piece buttons	2	3	1.6
Class 5	Two-piece flat buttons	1	1	0.5
Class 6	One-piece domed buttons	9	14	7.7
Class 7	One-piece semi-domed buttons	12	26	14.3
Class 8	Flat disk buttons, large	8	19	10.4
Class 9	Flat disk buttons, medium	9	57	31.3

Class 10	Flat disk buttons, small	5	17	9.3
Class 11	A-typical buttons	3	3	1.6
Total			182	

Various button classes that randomly numbered and sub-numbered and indicate the number of buttons analysed in each button class (Table 5 and Figure 50**)**.

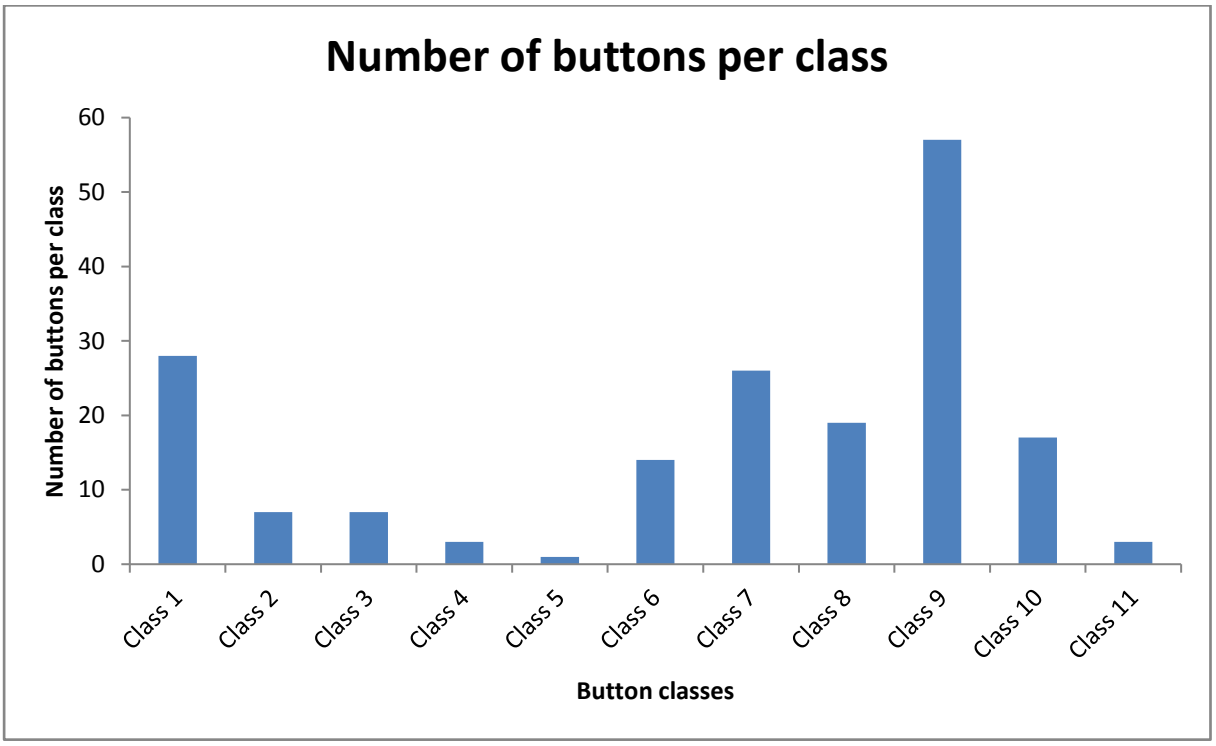


Figure 50. Number of buttons per class

The analysed buttons were classified according to specific characteristics and are illustrated in Table 6.

Table 6. Button classes and descriptions

Class	Group	Description
Class 1 One-piece buttons, four eyes	Group 1	Buttons with a convex shape and decorations on the inner ring around the four eyes.
	Group 2	Buttons with a narrow outer edge and relatively large inner convex.
	Group 3.1	Buttons with a low height of the inner convex.

Class	Group	Description
		Button has a prominent ridge at the bottom of the outer edge.
	Group 3.2	Buttons with a low height of the inner convex. Button has no ridge at the back of the outer edge.
	Group 4.1	Buttons with a prominent height of the inner convex. Buttons have a decorated inner ring around the convex. Buttons have a prominent ridge on the outer edge.
	Group 4.2	Buttons with a prominent height of the inner convex. Buttons have a prominent ridge on the outer edge.
	Group 5.1	Buttons with a prominent height of the inner convex. Buttons have a decorated inner ring around the convex. Buttons have a prominent ridge at the back of the outer edge. Buttons have a smooth edge.
	Group 5.2	Buttons with a prominent height of the inner convex. Buttons have a smooth edge.
Class 2 Two-piece domed buttons	Group 6.1	Small buttons. Button comprises alpha style shank. Button face is crimped in position. Buttons have no decoration.
	Group 6.2	Small buttons. Button comprises alpha style shank. Button face is crimped in position. Buttons are decorated.
	Group 7.1	Large buttons. Alpha shank Button face crimped on edge. Decorated on button face.
Class 3 Three-piece domed buttons	Group 8	Large buttons. Shank through back plate. Button face crimped on edge. Decorated on button face.
	Group 9	Medium buttons. Shank through back plate. Button face crimped around edge. Face is different material or inlay.
Class 4 Three-piece buttons	Group 10	Convex buttons. Shank is stamped. Outer band crimped on edge. Inlay inserted.
	Group 12	Unidentified three-piece buttons
Class 5	Group 11	Small buttons.

Class	Group	Description
Two-piece flat buttons		Face crimped on edge. Decorated on face.
Class 6 One-piece domed buttons	Group 13	Small button. Solid cast button. Decorated. Drilled shank.
	Group 14	Medium button. Unidentified inlay. Undecorated. Omega shank.
	Group 15	Undecorated. Shank is single pin.
	Group 16	Undecorated button. Rolled edge. Omega shank.
	Group 17	Cast button. Undecorated. Shank cast and drilled.
	Group 18.1	Undecorated button. Stamped. Omega shank. Medium button.
	Group 18.2	Decorated button. Stamped. Omega shank. Small button.
	Group 18.3	Undecorated button. Stamped. Omega shank. Undecorated button.
	Group 18.4	Undecorated button. Stamped. Small button. Unidentified shank.
Class 7 One-piece semi-domed	Group 19	Bevelled edge. Cast with a spun back. Drilled eye in cast shank.
	Group 20.1	Ridge on outer edge - top and back. Flat back. Decorated button.
	Group 20.2	Flat back. Decorated button.
	Group 21.1	Medium button. Ridge on back. Back stamp. Alpha shank.
	Group 21.2	Small button. Ridge on back.

Class	Group	Description
		Back stamp
		Alpha shank.
	Group 22.1	Decorated button.
		Omega shank.
		Large button.
	Group 22.2	Decorated button.
		Omega shank.
		Small button.
	Group 23.1	Small button.
		Alpha shank.
		Undecorated.
	Group 23.2	Medium button.
		Alpha shank.
		Undecorated.
	Group 23.3	Large button.
		Alpha shank.
		Undecorated.
	Group 23.4	Undecorated button.
		Drilled shank.
	Group 24	Unidentified.
Class 8	Group 25.1	Decorated button.
Flat disk buttons, large		Cast shank drilled.
	Group 25.2	Decorated button.
		Alpha shank.
	Group 25.3	Decorated button.
		Cone wire eye.
	Group 25.4	Decorated button.
		Unidentified shank.
	Group 26.1	Undecorated button.
		Backs tamp.
		Alpha shank.
	Group 26.2	Undecorated button.
		Alpha shank.
	Group 27.1	Undecorated button.
		Cone wire eye,
	Group 27.2	Undecorated button.
		Unidentified shank.
Class 9	Group 28.1	Decorated button.
Flat disk buttons, medium		Cast drilled eye.
	Group 28.2	Decorated button.
		Alpha shank.
	Group 28.3	Decorated button.
		Unidentified shank.
	Group 29.1	Undecorated button.
		Cast drilled eye.
	Group 29.2	Undecorated button.
		Alpha shank.
	Group 29.3	Undecorated button.

Class	Group	Description
		Unidentified shank.
	Group 29.4	Undecorated button.
		Back stamp
	Group 29.5	Undecorated button.
		Cone wire eye.
	Group 29.6	Undecorated button
		Omega shank.
Class 10	Group 30.1	Decorated button.
Flat disk buttons, small		Omega shank.
	Group 30.2	Decorated button.
		Unidentified shank.
	Group 31.1	Undecorated button.
		Alpha shank.
	Group 31.2	Undecorated button.
		Back stamp.
	Group 31.3	Undecorated button.
		Unidentified shank.
Class 11	Group 32	Two-piece button.
Atypical buttons		Round.
		Four eyes.
	Group 33	Cuff-link
	Group 34	Unidentified button.

6.4.2. Button distribution

Information about the distribution of the buttons from the battlefield is provided and the artefacts indicate the extent of the battle action but unfortunately, only up to the modern-day fence of the BBNR (Figure 51). I believe the battle extended beyond the modern-day boundary fence of the BBNR, but no surveys have yet been undertaken in the adjacent areas, as it is not covered under the HWC permit conditions. This could not be substantiated without the required archaeological evidence. The modern-day boundary fence was not erected according to a specific geographic feature or obstruction, such as a river, that could have had an influence on the extent of the battle. Further, the artefacts retrieved near the fence line suggest that the retrieval pattern would most probably continue beyond the fence line.

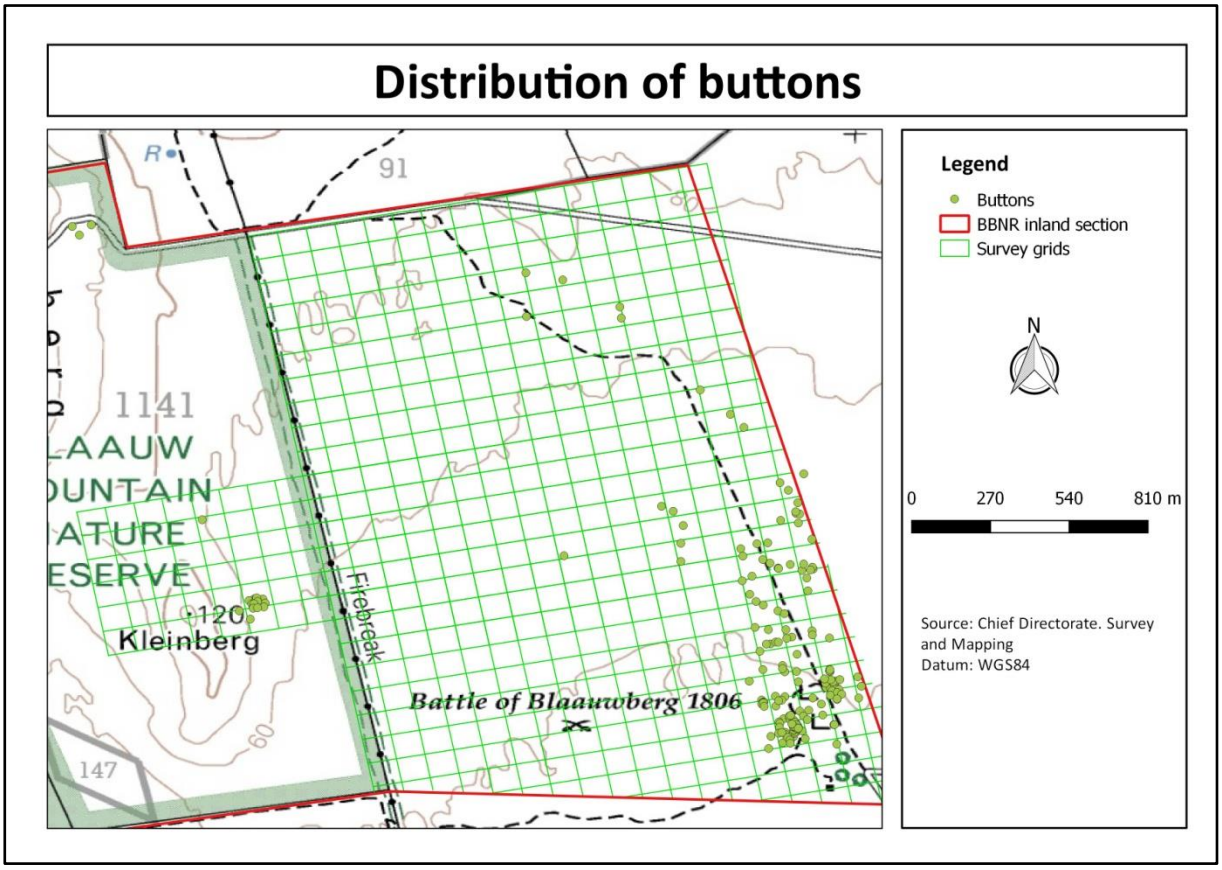


Figure 51. Distribution of buttons retrieved from the battlefield

Several significant button clusters can be identified from the button distribution map (Figure 51; Figure 52). The buttons from area 1 (Figure 52) most probably have little significance to the battle, as they were retrieved near the remnants of a historical homestead, that has since been destroyed. This area had little significance in the battle as the men of the First Brigade only marched through this area en route to the area of engagement. Further, these buttons retrieved from the homestead area are most probably civilian buttons and not military.

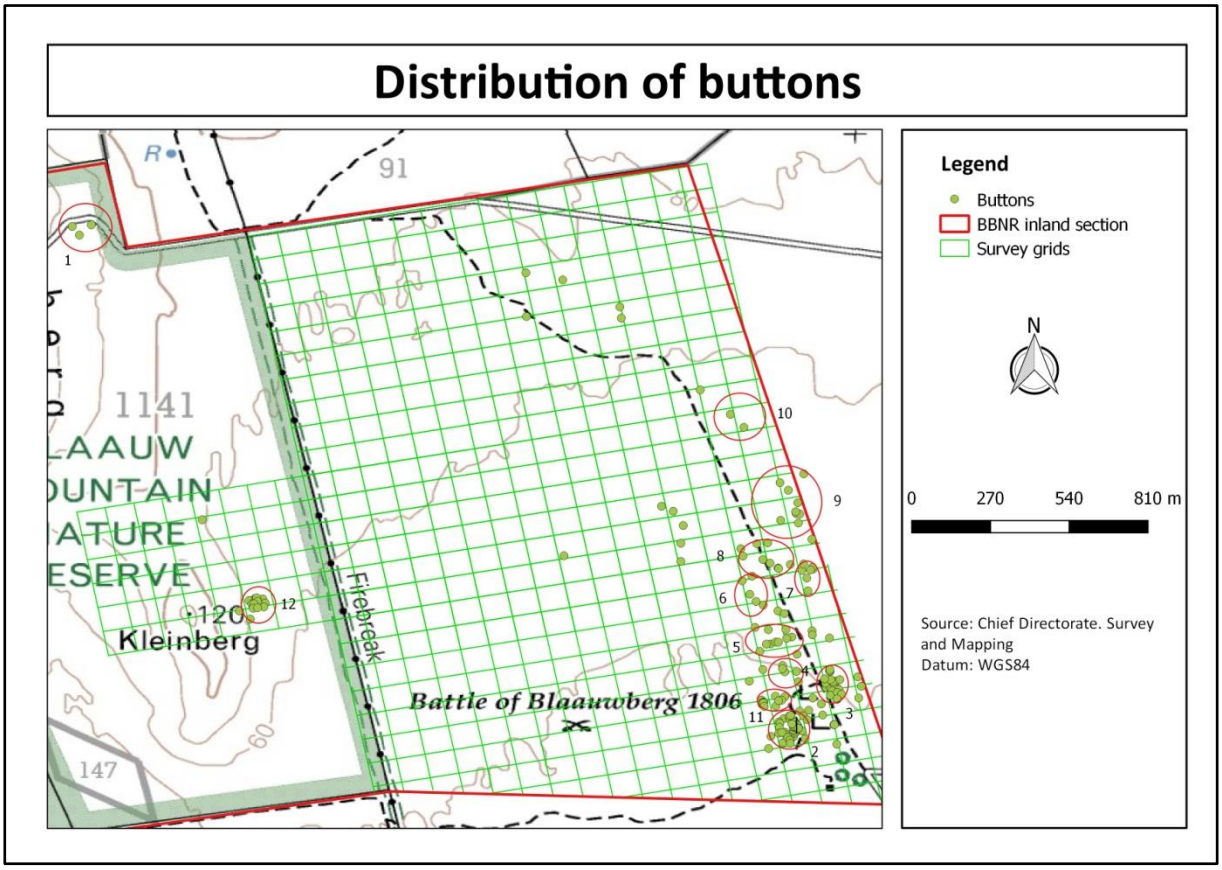


Figure 52. High concentration areas of retrieved buttons

Buttons retrieved from area 2 (Figure 52) are highly significance to the battle as they are often associated with the field hospital. Justinus Keer, the farmer and occupant of the farmhouse and buildings, made his property available as a field hospital during the aftermath of the battle (Smith 1892: 123). Marius Breytenbach (2015) determined the location of the farmhouse and identified several high density areas of surface artefacts or midden areas that could be associated with the farm buildings. The distribution of metal artefacts and buttons within the same area provides similar evidence.

As this area was used as a farmhouse, civilian buttons among the collection are highly likely. However, the sheer number of buttons retrieved near the farmhouse exceeds any expectation of what might be retrieved from an ordinary farmhouse site. The Reverend Martyn (Smith 1892: 123), on arriving at the scene of the battle and the field hospital, noted that about 200 wounded men lay strewn inside and outside the farmhouse. From the above discussion, it could be assumed that the buttons from this area are associated with the field hospital and the aftermath of the battle.

Area 3 (Figure 52) represents the area used as the outspan, with travellers unpacking and loading their wagons or horses near the water source. It could also resemble the place where both the Batavian forces and the British forces rested before and after the battle, respectively. High density areas 4 to 9 (Figure 52) represent areas significant during the battle. I argue that these areas represent intense fighting that resulted in the loss of the buttons. Similarly, to the distribution of musket balls, a staggered distribution of buttons is visible. This suggests that the Batavian defensive line did not retreat in a line, but that a staggered retreat occurred. Certain groups would keep the British at bay while other groups retreated some distance. They would then reverse the roles, allowing the ones in front to fall back.

General Janssens set up his Batavian defence to combat the British forces approaching from the north in a line formation spreading from east to west (VC80: 26). The 5th Regiment of Waldeck formed the centre of the Batavian defensive line, but unfortunately, they left their positions relatively early in the battle and fled in great confusion (VC80: 32). Since the rest of the defensive line apparently held their positions bravely until the general retreat was sounded, one would expect to see a linear distribution in the artefact record and in the button distribution. Unfortunately, this linear distribution is not clear, but instead, several high concentrations of buttons appear (Figure 52). From the position of the Batavian defensive line towards the south, six prominent high concentration areas of buttons appear, suggesting that the battle did not occur along a singular line, but rather reveal several smaller encounters as the Batavian forces were retreating.

Area 10 (Figure 52) was probably in front of the possible Batavian defensive line and therefore suggests that the buttons could be British buttons. Although the exact position of the Batavian artillery on the right flank of the Batavian line has not yet been identified, the area most likely for its position is towards the south-east of the high concentration area of buttons numbered area 10 (Figure 52). This area also revealed a high number of cannon projectiles in the form of canister shot, grapeshot and round shot. Using grape and canister shot suggests that the artillery position was relatively near. It is therefore likely that the high

concentration of buttons in this area is because of the loss of men on the British side due to the effective use of the Batavian artillery.

Area 11 and area 12 (Figure 52) pose similar challenges interpreting the battle events. Both these two areas are relatively small and yielded a high density of buttons. Area 11 is situated 150 metres from the farmhouse, used as a field hospital. Further, it is situated on the opposite side of the house from the water source for the farm. It is possible that area 11 could be the position of the graves of the fallen soldiers.

The aim of the research has never been to locate and identify the graves associated with the battle, but it is likely that the mole activity in the area has brought the buttons, buried at depth, to the surface. Since the metal detectors are also only effective up to a maximum depth of 400 mm, it was impossible to prove the existence and presence of a grave or graves at this location.

Area 12 (Figure 52) is situated at the foothill of Kleinberg, where the British 24th Regiment encountered burgher militia. Several metal detector surveys surrounding the area have yielded no evidence of any further military action besides the high density of buttons in a relatively small area. Among the buttons, however, several canister shots were identified, once again suggesting the location of the Batavian artillery nearby.

I think that area 12 could mark the graves associated with the skirmish on Kleinberg since the proximity of many buttons in a radius of about 20 metres suggests that several men in military uniform congregated at this spot.

6.5. Buckle results and discussion

Seventy-three buckles that could be analysed were retrieved during the archaeological surveys on the battlefield. Most of these buckles were manufactured from copper alloy, with the rest manufactured of iron or steel. Fifty-five buckles were copper alloy and 18 iron or steel buckles made up the assemblage (Figure 53).

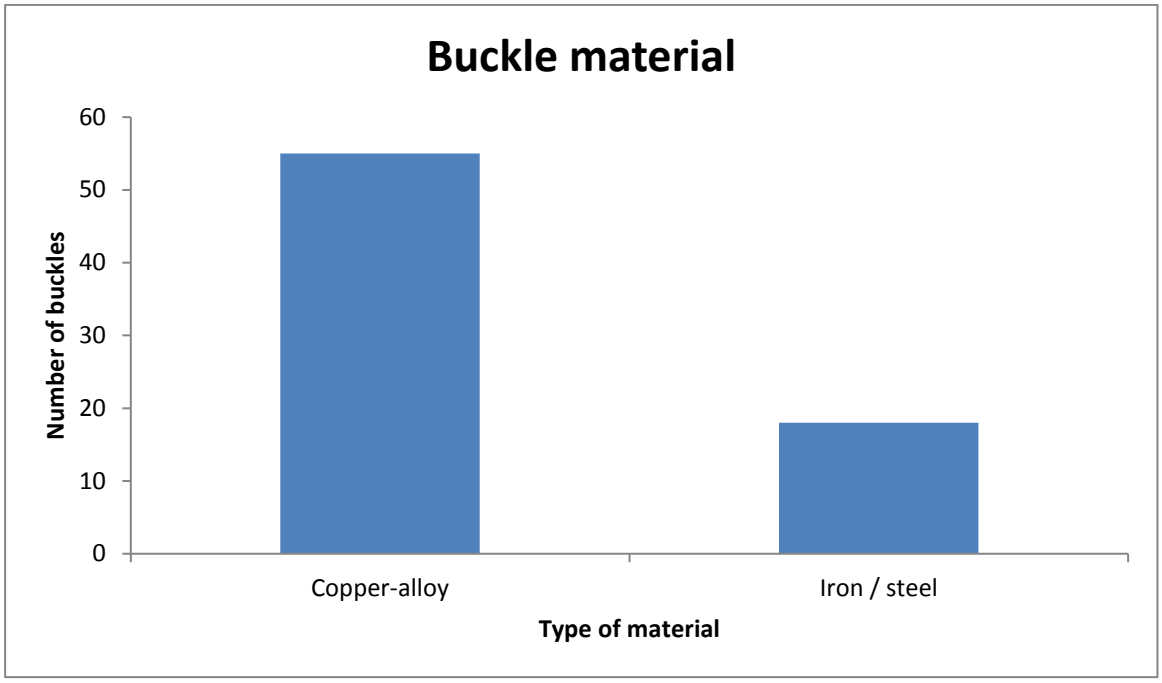


Figure 53. Number of buckles per material used to manufacture

According to the classification of the buckles, a total of seven buckles were classified as so-called stock buckles or clasps, 29 buckles have double frames, 34 have single frames, with three fragmented buckles that could not be classified (Figure 54).

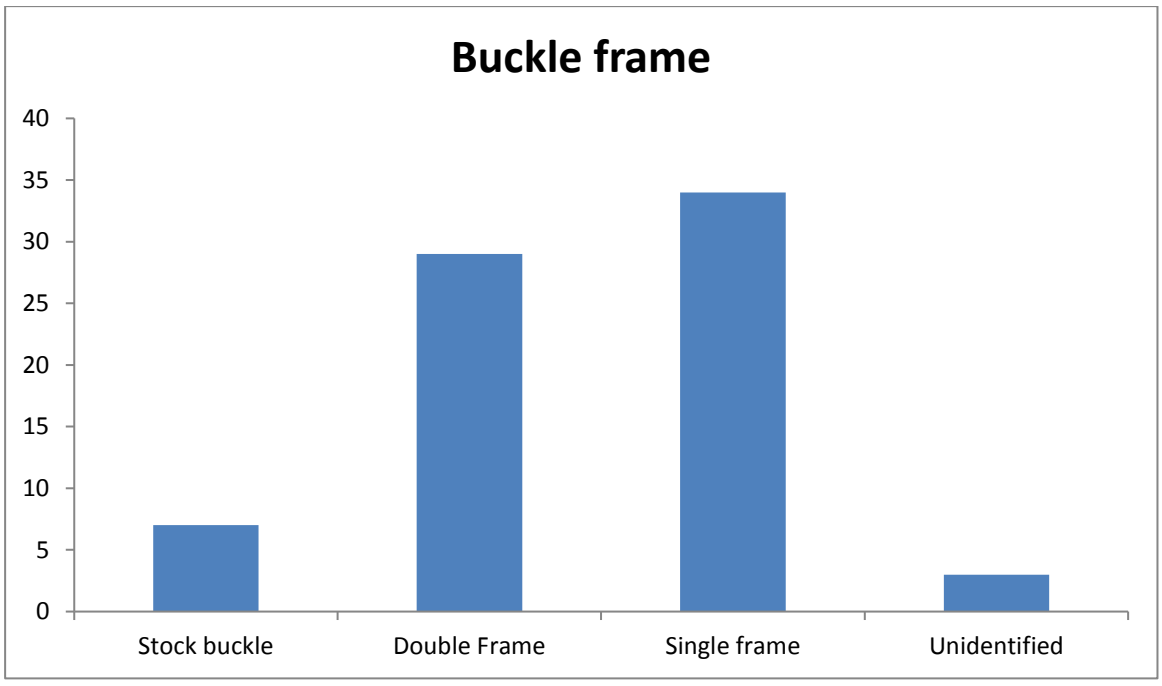


Figure 54. Classification of buckles according to frame

The classification of buckles according to their shape revealed that most buckles, 43, have a rectangular shape, with both the D-shape and circle and D-shape buckles seven in total. Square buckles numbered five, with the other shapes three or less (Figure 55).

The double shaped buckles that have a combination between the D-shape and either circle, rectangle or square and the rectangle with wings, are typically horse harness buckles and provide specific insight into the routes across the study area.

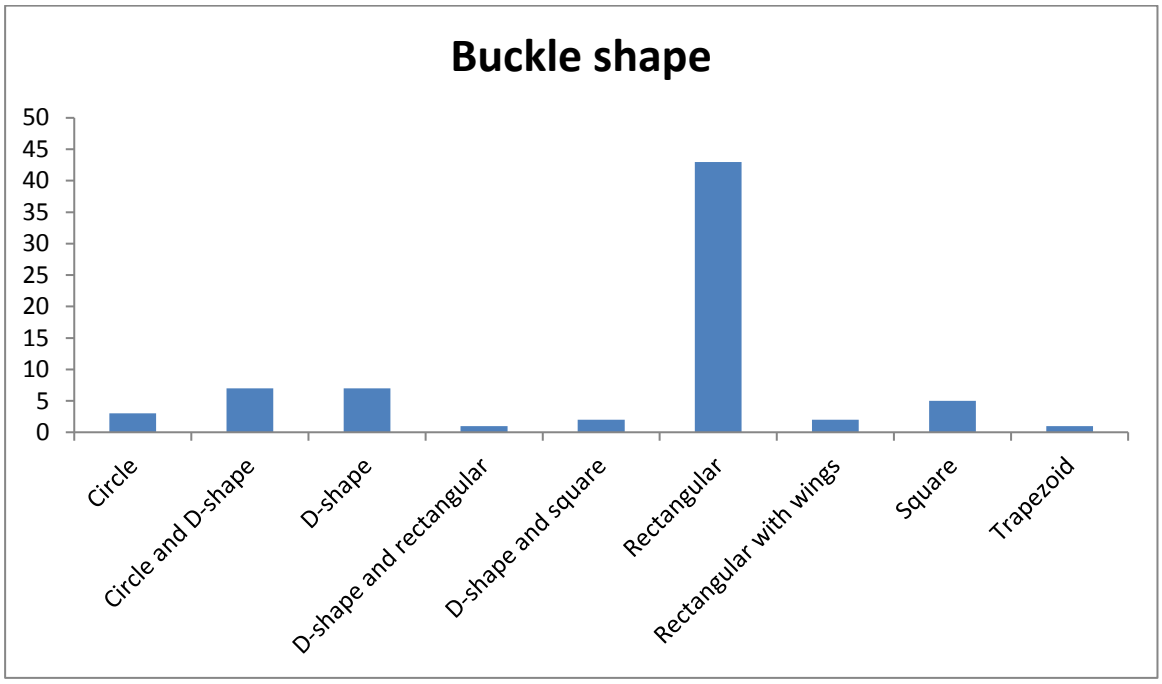


Figure 55. Buckle shape

By investigating the use of the buckles, it could be determined that 22 buckles might have been used for clothing, while 33 buckles were probably used as part of a horse's harness. The function of 18 buckles could not be determined and they were classified as unidentified (Figure 56).

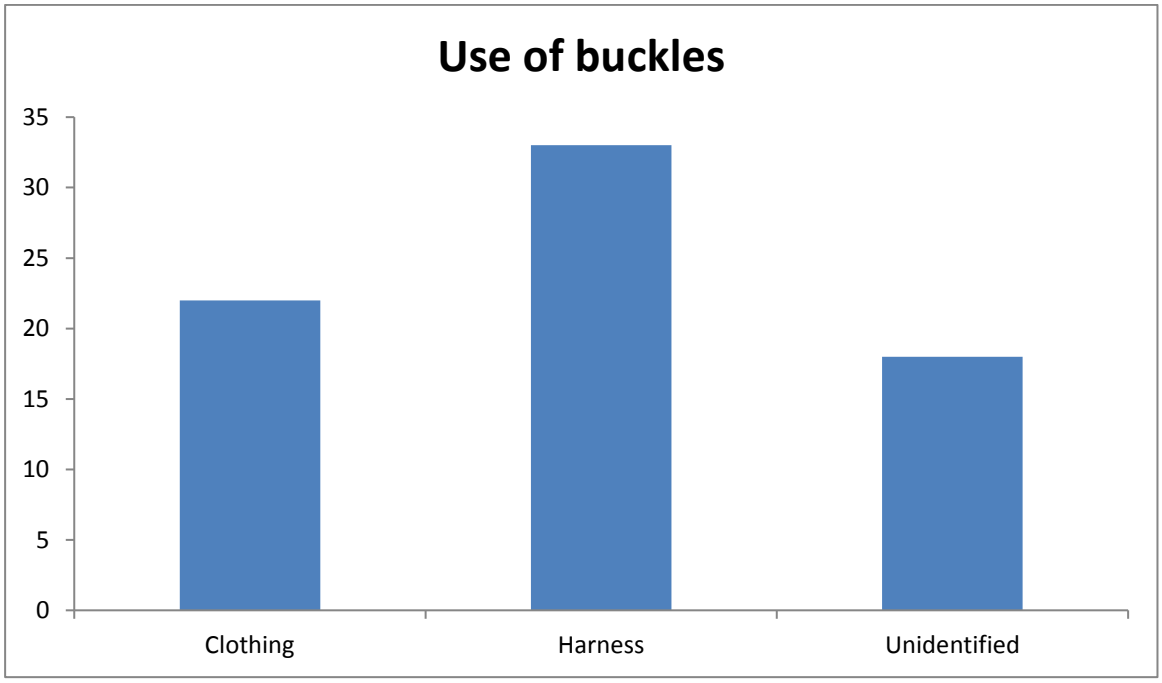


Figure 56. Use of buckles

The investigation into individual buttons revealed little additional information that could unravel the intricacies of the battle, but two specific sets of buckles were of interest. Firstly, two small double buckles with a movable tongue showed the inscriptions ‘Paris‘ and ‘Solide‘. The French association warranted further investigation as it could confirm the presence of French Marines at the battle. According to the recorded positions on the battlefield from the two retrieved French buckles, as indicated in Figure 57, they fall in line with the possible historical position of the French Marines as General Janssens placed them at the outset of the battle.

Various catalogues and websites of collectors and forums have been searched to determine the era or time of use of these buckles and, as far as determined, they date from 1720–1790. Whitehead (1996: 112) describes these buckles as copper alloy with a drilled frame for separate spindles. This could place the buckles at the battlefield and position the French Marines within this area.

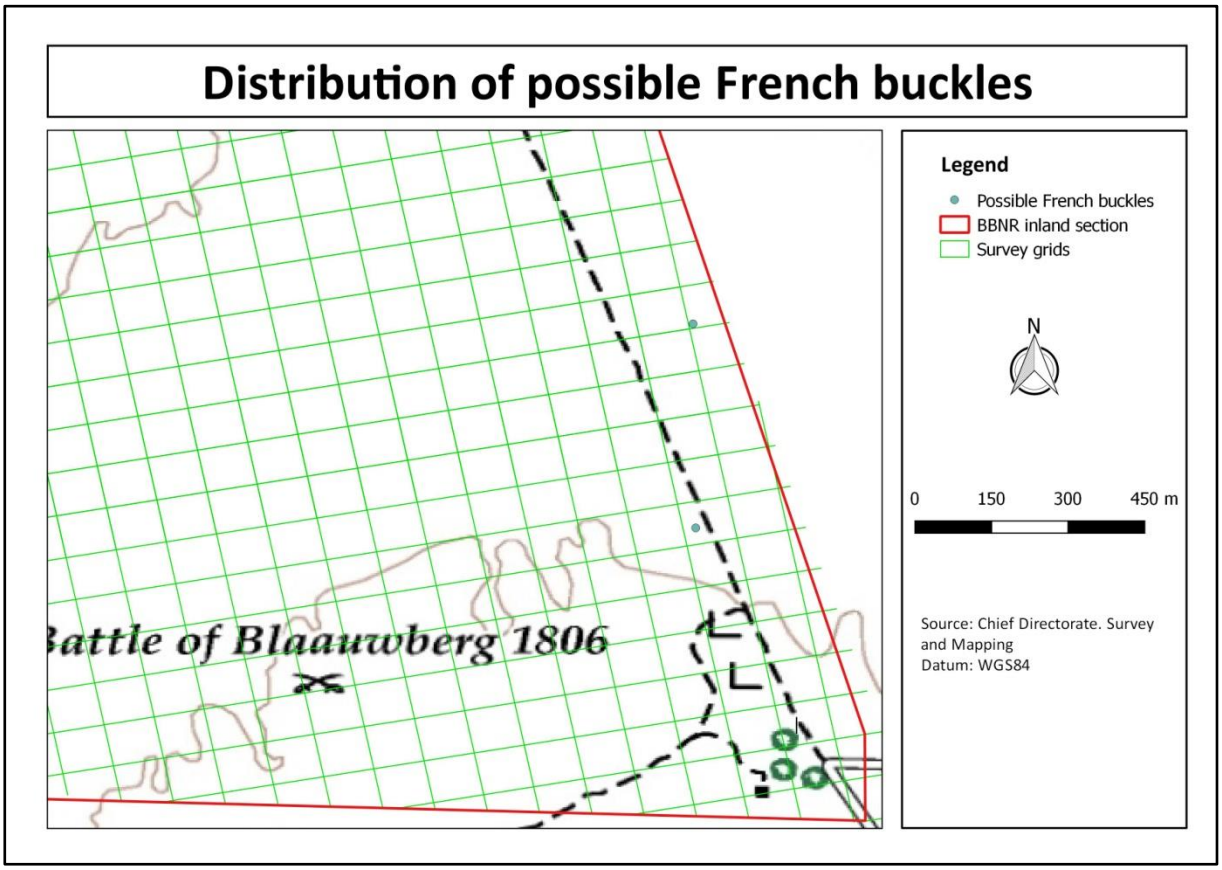


Figure 57. Location of possible French buckles

Seven further buckles or stock buckles are of interest as they might have been worn during the battle. In his review of the military regulations of 1802, Carman (1940) observes, “black leather stocks were to be worn by the non-commissioned officers, drummers, fifers and privates of the guards and by every other description of regiments or corps of infantry.” The main purpose of the stock buckle was to keep the bearer's neck in a straight and upright position to improve the posture of the soldier; it then also acted as a guard to protect the neck from slashes by an opponent's blade (Carman 1940). It is possible that soldiers lost the stock buckles during the battle. The soldiers could either have been wounded, killed or could have removed the neck stock to gain relief from the discomfort during the heat. The leather perished over the years, with the stock buckles remaining on the battlefield.

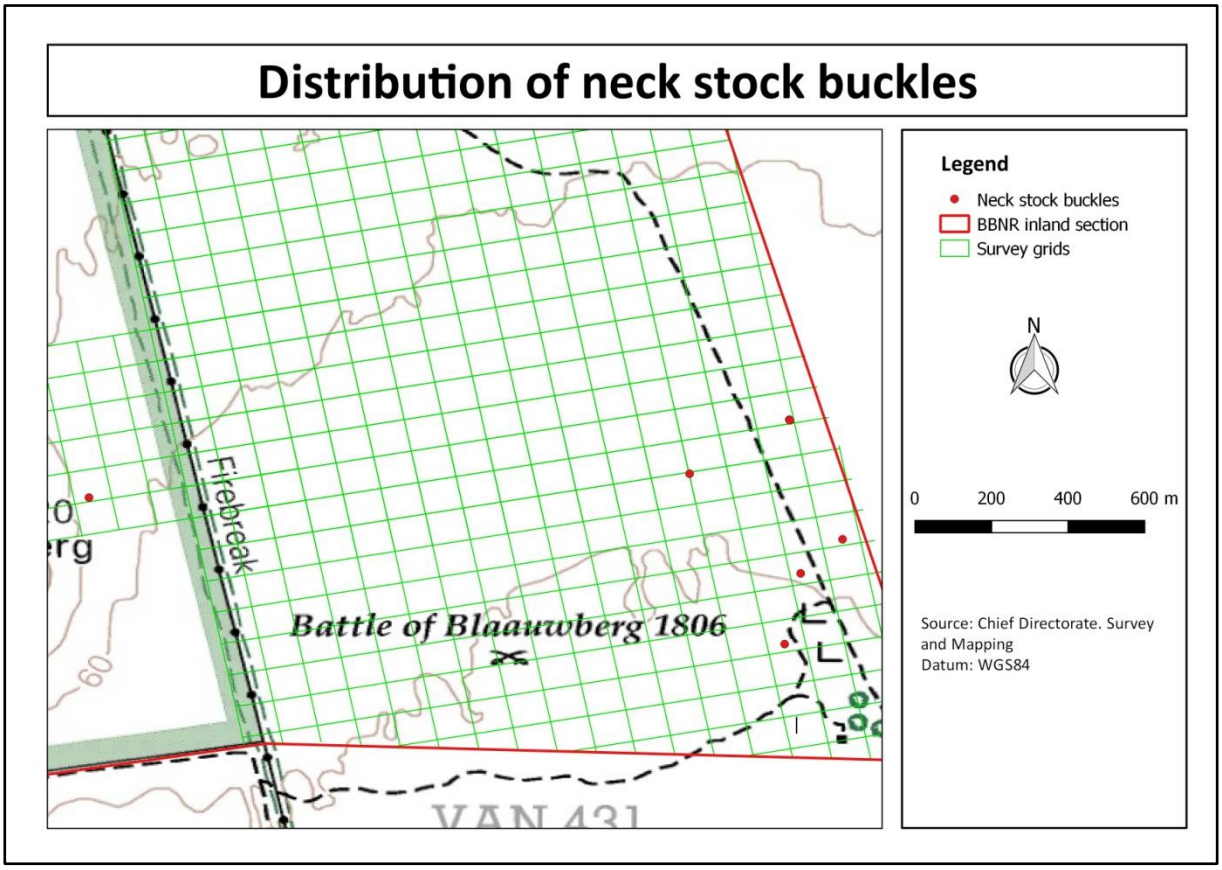


Figure 58. Geographic position of neck stock buckles

The position of the neck stock buckles is indicated on the battlefield (Figure 58 and Figure 59). These buckle positions have significance to the battle. The two buckles retrieved the furthest north, were located near each other and could be linked. The one forms the hook to connect to the other and could have been connected to the same leather neck stock and worn by a single soldier. All, but one, of the positions indicated are positions where heavy fighting could have occurred during the battle. However, the buckle retrieved furthest south was located near the farmhouse and this buckle could be from a wounded or killed soldier.

The neck stock buckle retrieved from the area near Kleinberg could be associated with the skirmish on Kleinberg as it was located near most of the buttons from this area. It is also possible that this buckle and the buttons indicate the position of graves near Kleinberg.

Figure 59. Neck stock buckle

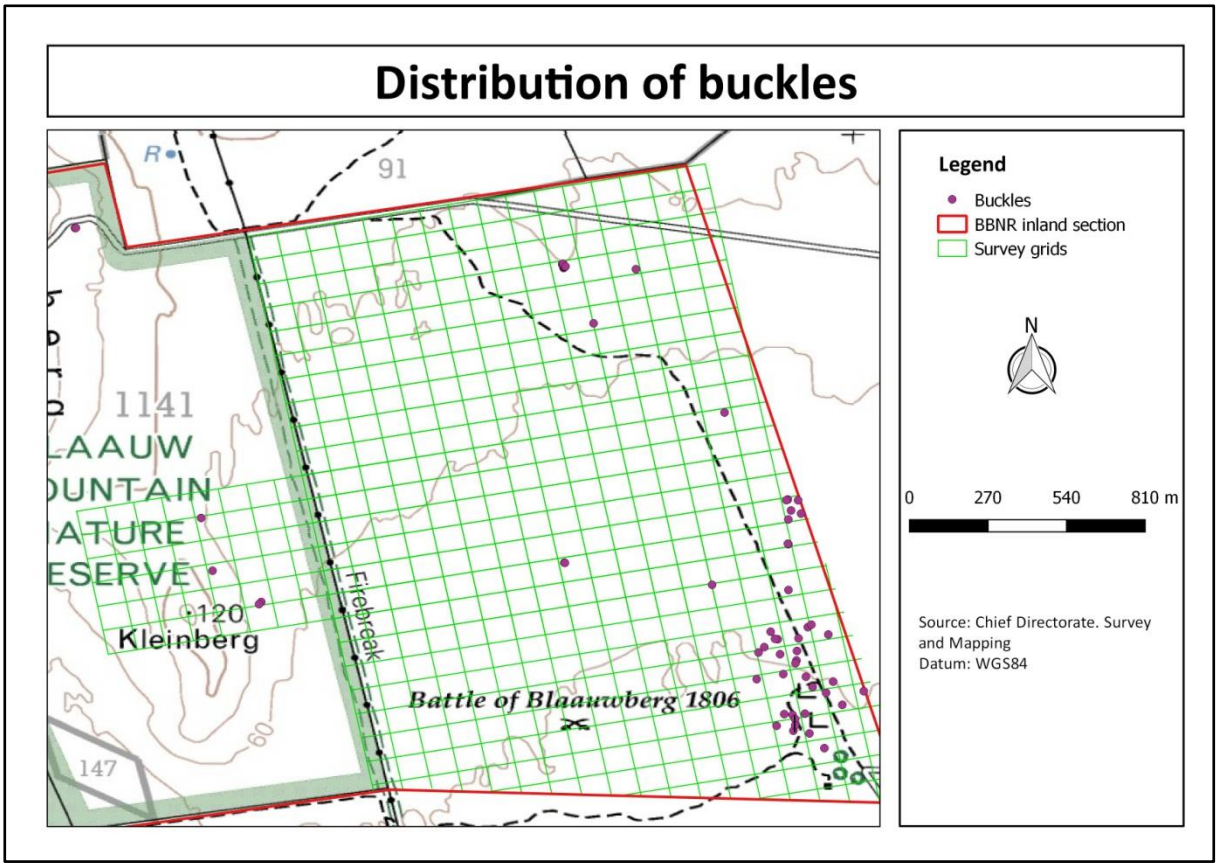


Figure 60. Buckle distribution

The positions of the buckles across the battlefield are indicated with five areas of high concentration that have been identified that merit further discussion (Figure 60 and Figure 61).

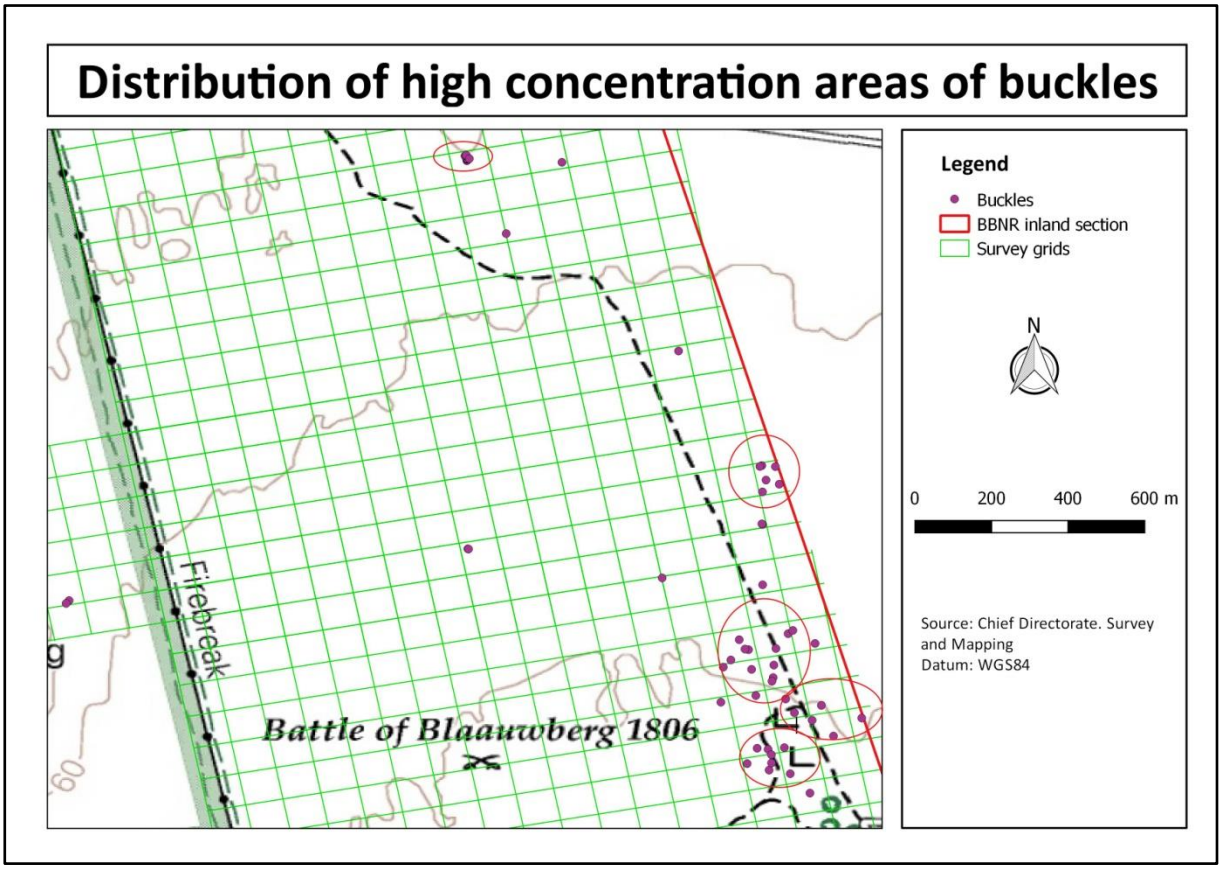


Figure 61. Five high concentration areas of buckles

The five high concentration areas of buckles with the area furthest south, can be associated with the farmhouse of Justinus Keer. Both iron or steel and copper alloy buckles have been retrieved from this area and resemble a combination of buckles used for clothing fasteners and those buckles used for horse harnesses. The buckles retrieved from this area might represent buckles to fasten general farm implements but could also be buckles from the clothing of the soldiers who received medical attention after the battle.

The second area (Figure 61) resembles the outspan area just adjacent to the farmhouse. This area is significant as many travellers rested here to water their animals at the nearby fresh water spring. The yoking and unyoking of the animals could have resulted in the loss of buckles from the harnesses. The Batavian forces spent the night before the battle at Blaauwbergsvlei, while the British forces rested at Blaauwbergsvlei after the battle, which could also have resulted in the loss of buckles.

The third and fourth high concentration areas of buckles (Figure 61) are two near the main north-south route leading from Blaauwbergsvlei to Jan Mostert's farm. From an archaeological point of view, these two areas could be associated with the routes and travelling along the routes over time but could also be associated with the 1806 Battle of Blaauwberg as intense fighting occurred within these two areas.

The last area (Figure 61) is of interest as it occurs in the position of the British heavy artillery (Hutten 2015). The high concentration of 22 buckles retrieved within an area measuring 12 m x 20 m are indicated in Figure 62.

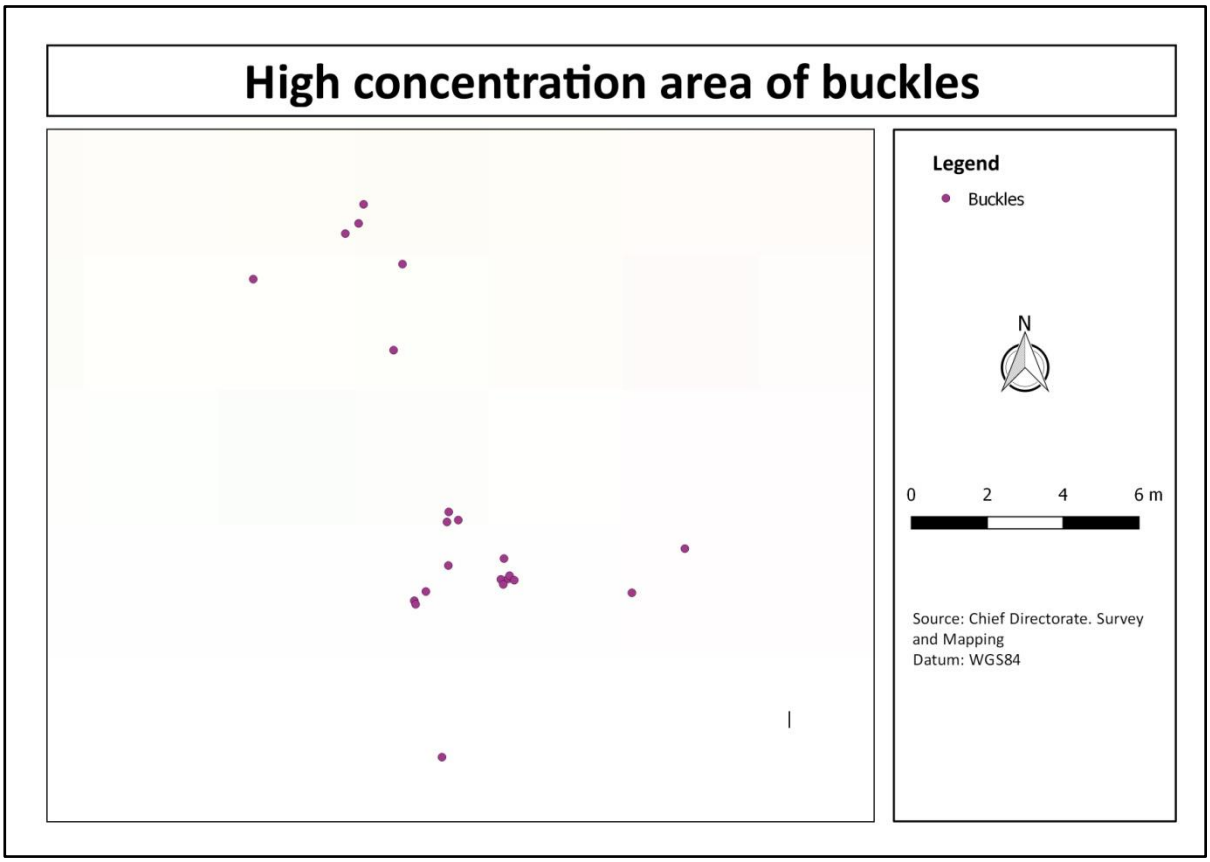


Figure 62. High concentration of buckles near the British heavy artillery positions

The Batavian forces under command of General Janssens fired at the start of the battle, and hollow howitzer common shell was fired at the enemy with the purpose of striking the artillery (Caruana 1997: 7; Muller 1779: 65). A single fragment of a howitzer shell was identified about 50 m from the high concentration of buckles (Figure 63).

The howitzer shell fragment was fired by the Batavian artillery as measurements confirm the cannon shell fragment size to that generally manufactured in Austria (Dawson *et al*. 2007: 102). It was therefore not fired by the British since shells associated with them had a slightly smaller diameter.

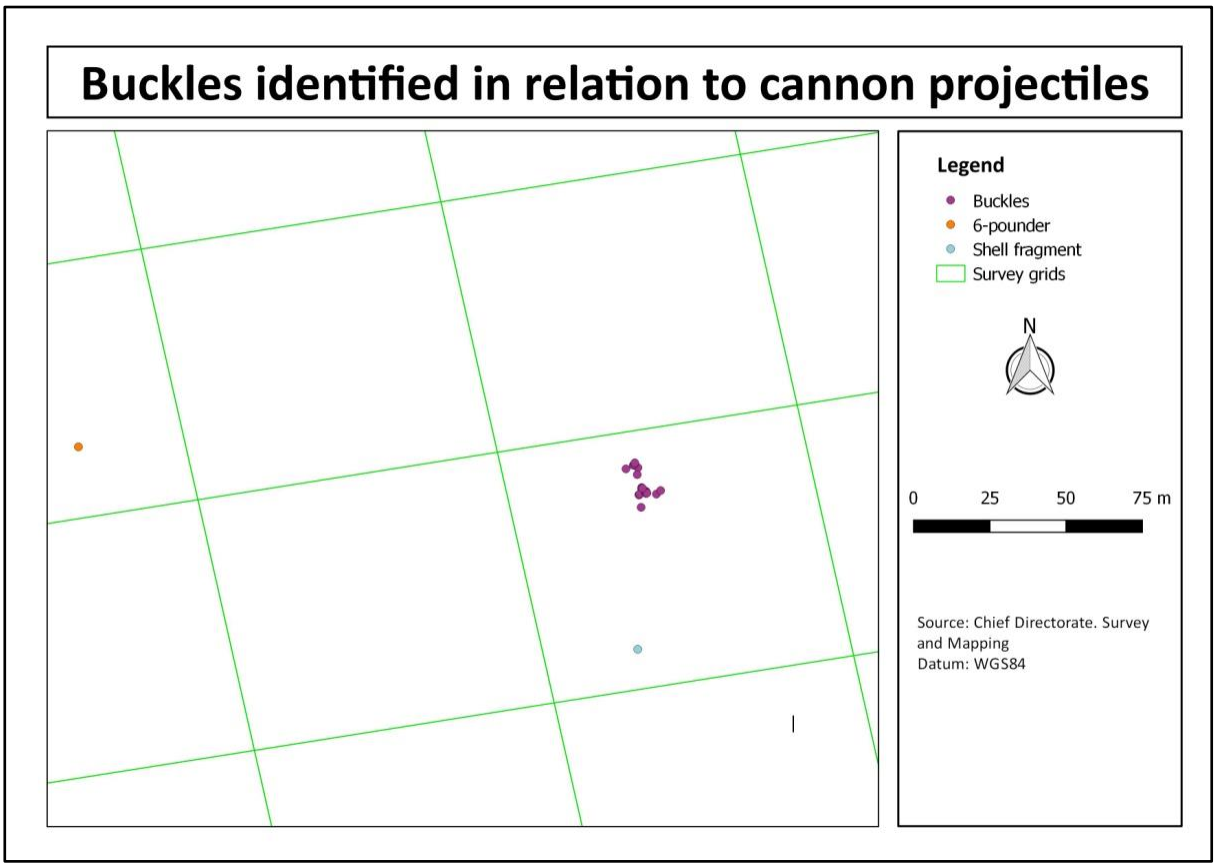


Figure 63. High concentration of buckles in relation to the howitzer shell fragment

It is, however, impossible to prove the connection between the cannon shell fragment and the high concentration of buckles at this location. There is a possibility that the buckles originate from the harness of a horse killed by the impact of this or other shell fragments.

6.6. Coin results and discussion

Fifty-two coins were retrieved from the battlefield and used for the analysis. Unfortunately, five could not be identified as they were heavily soiled or corroded, so much that the markings were incomprehensible and identification not possible. One coin, even though heavily soiled, could be partially identified as only the date was visible.

Through the identification of the dates on the coins, an initial division was conducted per era. It was decided to group the coins per 50 years to provide an indication of the time distribution of the coins. The two oldest coins dated back to the 1650 to 1699 period, for the period 1700 to 1749, one coin was identified, for 1750 to 1799, five coins, for the period 1800 to 1849, 11 coins, for the period 1850 to 1899, four coins, while the periods 1900 to 1949 and 1950 onwards counted 14 and ten coins respectively (Figure 64).

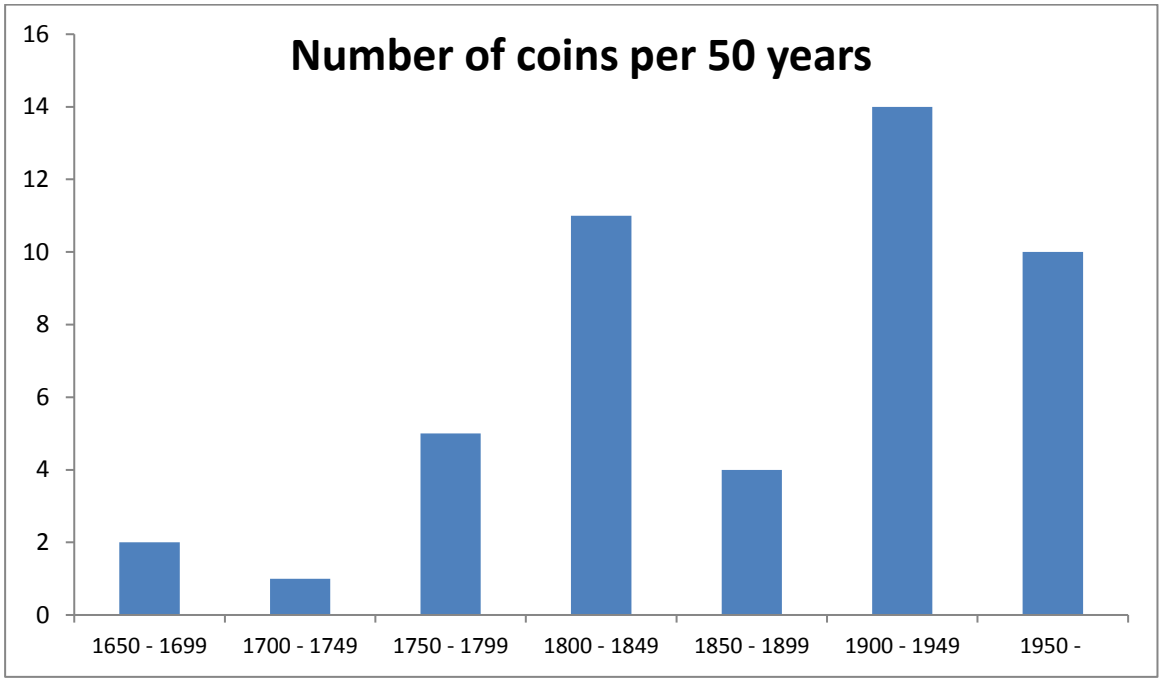


Figure 64. Number of coins per 50 years

The analysis of coins further involved the identification of the country of origin. Forty-six coins were studied that revealed the country of origin. South Africa was the country that featured the most with 21 coins; British coins numbered 20, four coins were from the Netherlands and one coin originated from France (Figure 65).

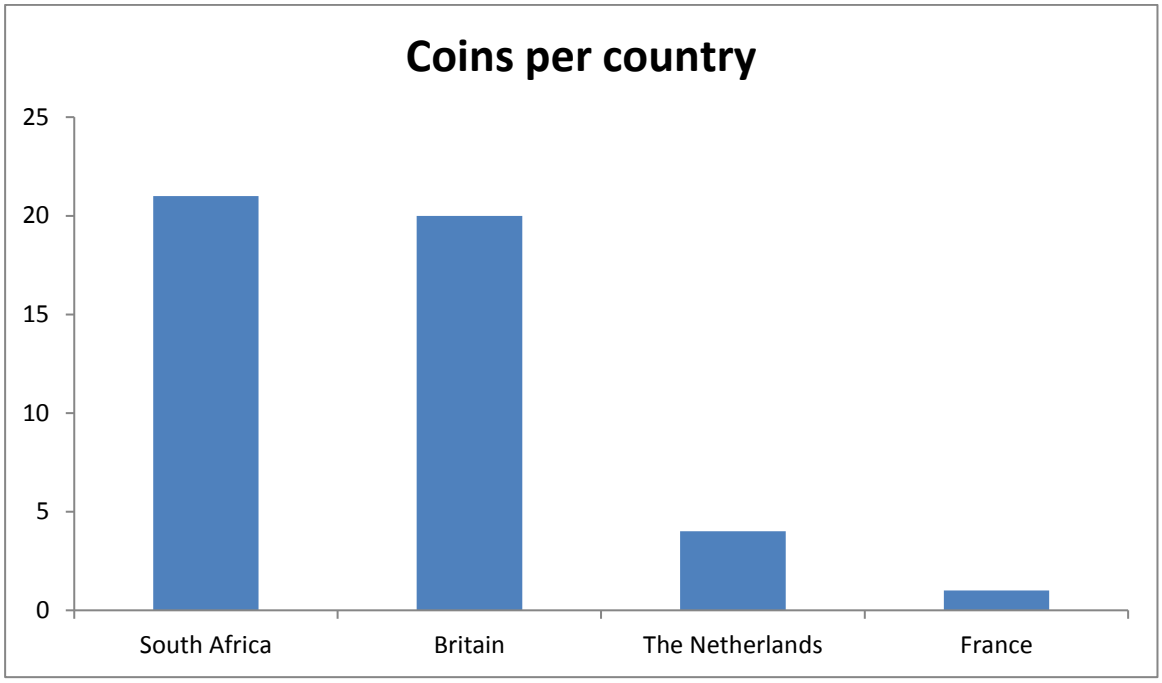


Figure 65. Number of coins per country

Krynauw (1999: 91) states that General Janssens occupied the main route from Cape Town northwards to halt the British progress to Cape Town. The routes used mostly traversed the landscape leading from one farm to the next. Travellers en route also used these from Cape Town to Saldanha Bay and other destinations north of Cape Town. The maps produced after the battle to capture the battle events, also indicate several routes crossing the battlefield (M1/2064-2071; M3/21). Breytenbach (2016: 25), in his research on the farmhouse of Justinus Keer and the adjacent outspan area, also mentions the well-travelled routes within the area. The outspan area was officially designated on 22 April 1794 (SG Dgm 30/1794). According to the conditions of the outspan, the owner was "obliged and bounded to allow all those inclined to unyoke, to remain free and uncontested and not to disturb the pastures of their cattle" and also "to properly clean and keep clean a certain dam, on nearly 60 morgen of his land, in order to be likewise used undisturbed by the passing country inhabitants" (CO 8433/5). From the evidence above, not only the combatants, but also many travellers over time traversed the study area. The coins from the battlefield cover both a large area and an extended period.

To investigate the geographical distribution of the coins a coin distribution map was produced from the data recorded during the field surveys (Figure 66).

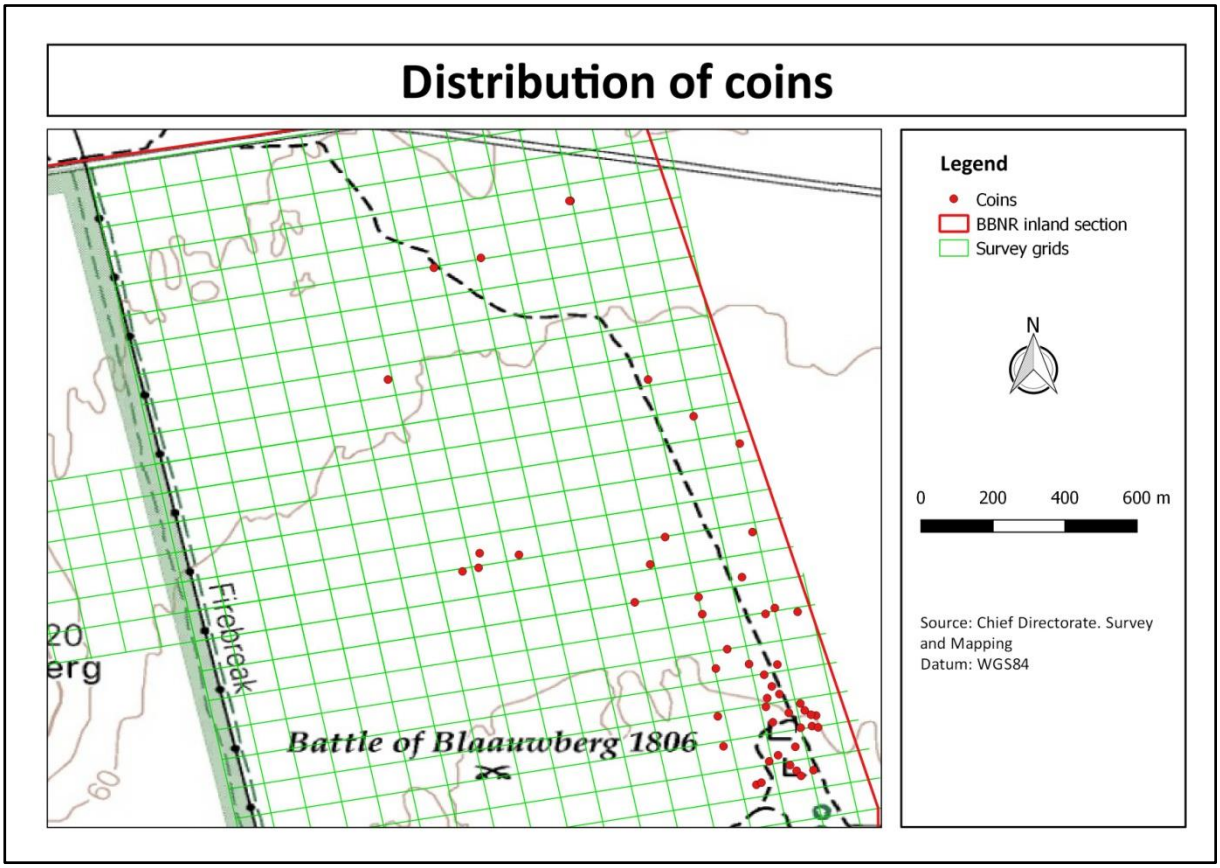


Figure 66. Coin distribution map

The coin distribution map shows a high concentration of coins towards the southern parts of the battlefield and further north the concentration becomes less. By analysing the distribution map several significant areas were identified (Figure 67). Further, three circles representing high concentrations of coins, and three lines representing the linear distribution of coins are indicated (Figure 67).

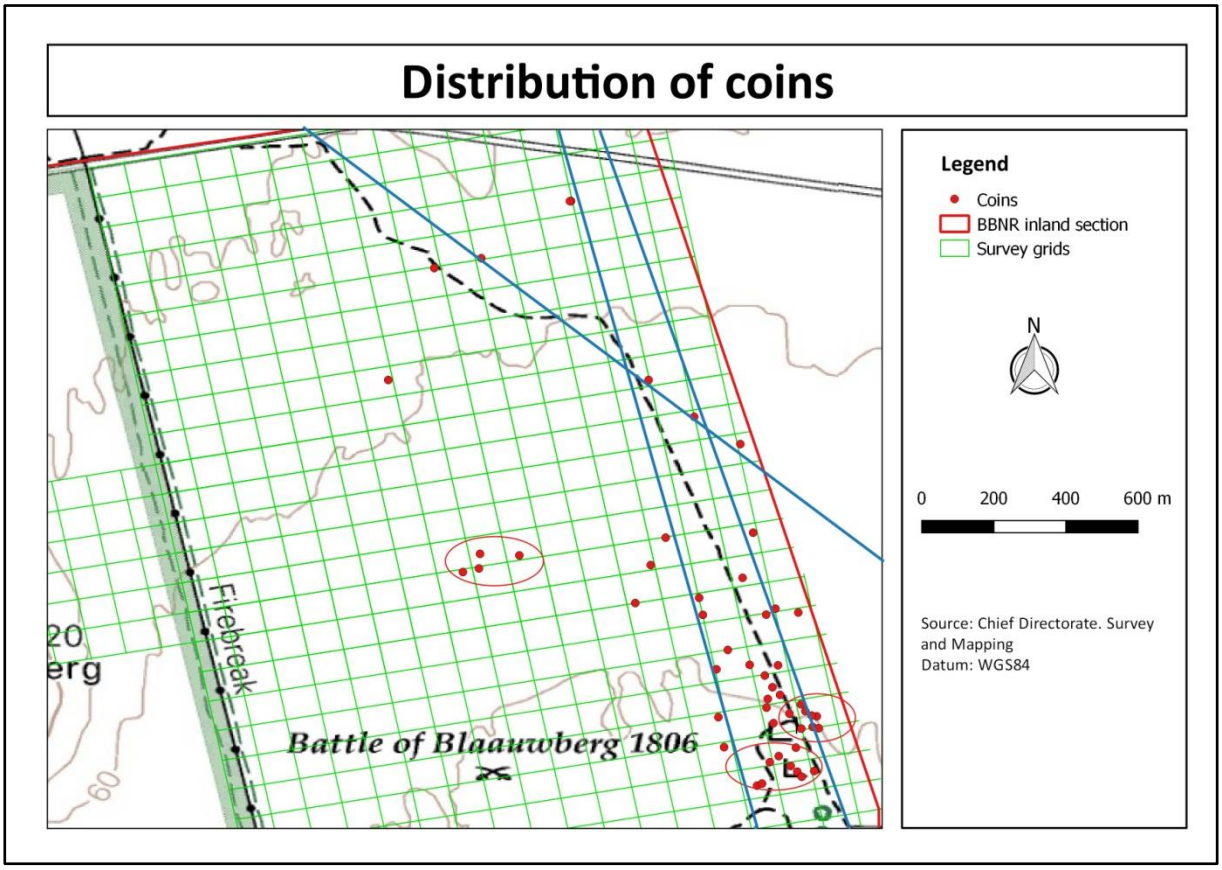


Figure 67. Significant areas of coin distribution

The most southerly high concentration area of coins represents coins retrieved from the farmhouse area (Figure 67). This area was used as the farmhouse of Justinus Keer from the late 1700s and, while the original house could only partially be determined (Breytenbach 2016), the location was subsequently used to build a 20th-century house which was demolished during the early 1980s. The farmyard was normally a hive of activity since farm workers and visitors congregate near the buildings. It is understandable that coins were often lost by their owners within this area. As the residence of Justinus Keer was used as field hospital after the battle (Krynauw 1999; Erasmus 1972), the possibility of coins lost by wounded soldiers or medical personnel is also likely.

The high concentration area slightly north-east of the farmhouse represents the outspan area (Figure 25). The coins from this area relate to those that have been lost by travellers during the yoking and unyoking process of their animals and wagons as they stopped at the outspan area to water their animals.

The third circle in Figure 67 represents the coins at the fresh water spring named Borrel dam (Figure 24). Water was not readily available within this area (Atkinson 1940: 76; Hook 1832: 113; Theal 1899: 272) and a fresh water spring was, therefore, a welcome haven in this harsh environment. Similarly to the outspan area, travellers within this area likely made use of the opportunity to water their animals and this could have resulted in the loss of coins.

The three blue lines (Figure 67) reflecting a linear distribution of coins represents roads or routes traversed by travellers across the study area. By creating an overlay of the significant coin areas on maps representing the historical routes (Figure 68 and Figure 69), it could be determined that the linear distribution of the coins coincides with the position of the historical routes. Figure 68 is an extract of the 1806 map produced by Captain Read and indicates the positions of the Batavian and British forces before the battle. Significant to the analysis of the spatial distribution of the retrieved coins is the position of the historical routes.

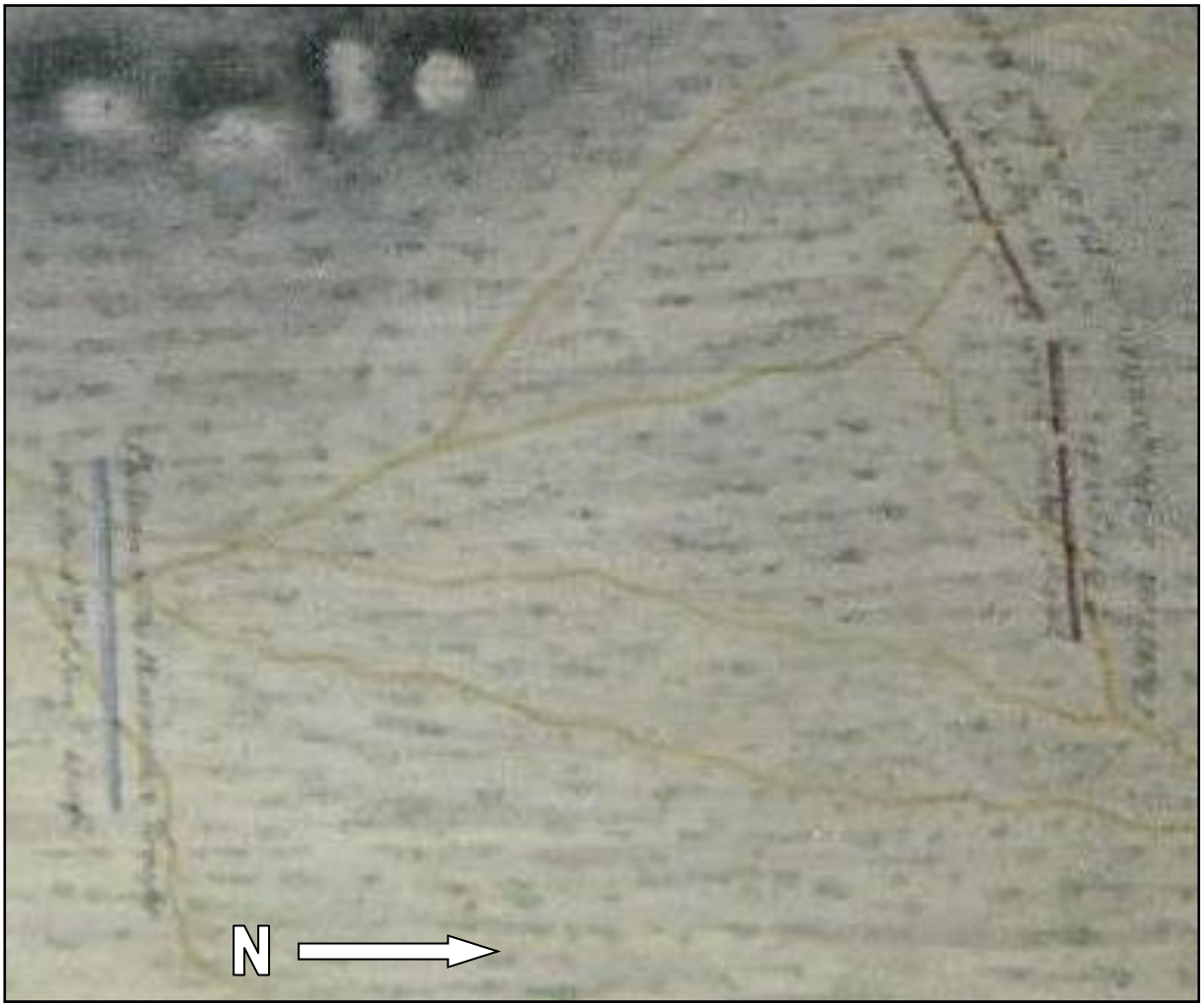


Figure 68. 1806 map – Captain Read (M1/2064-2071)

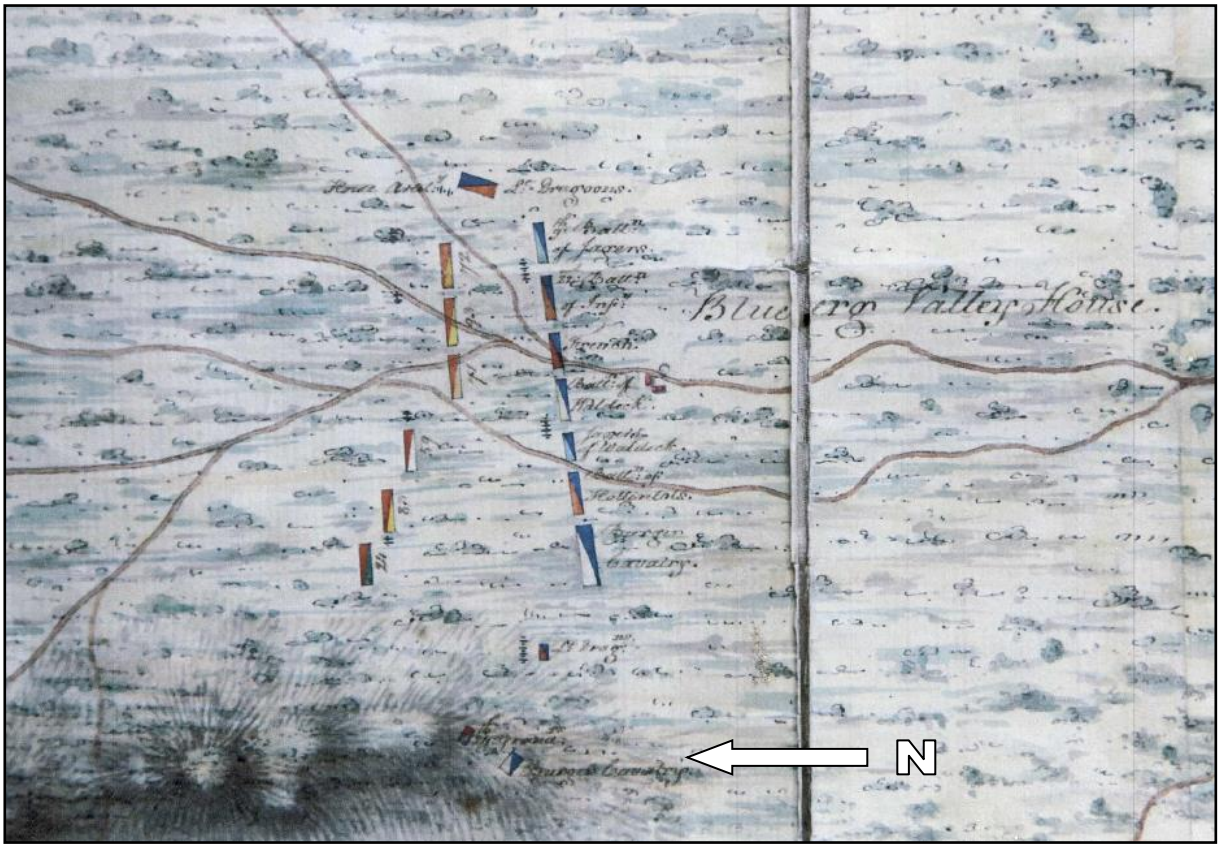


Figure 69. A second map of the battle site, drawn by Read & Long, dating to 24 September 1806. The map further indicates the position of the historical routes (M3/21).

Two relative parallel roads leading north are shown with a route leading north-west (Figure 68). An extract of the 1806 map produced by Captains Long and Read (Figure 69) indicates the positions of both the Batavian and British forces, but after the British forces had approached the Batavian defensive line. The historical routes are also visible and show the two parallel roads leading north and the route leading to the north-west. The blue lines drawn show the linear distribution of the coins (Figure 67) that coincide with the routes on the historical maps. The archaeological evidence could reconstruct the positions of the possible historical routes as indicated on the two 1806 maps (Figure 68 and Figure 69).

Only eight coins could have been present at the 1806 Battle of Blaauwberg as their dates are before 1806. Three coins date from 1797 and are of British origin, four coins are Dutch, and one French coin dates to before 1806. The three British coins are the so-called 'cartwheel pennies' and were minted as the first copper pennies that became the pay for the army (Snodgrass 2003: 51). Even though the coins were minted for several years, the date, 1797,

stayed the same. It is possible that the three copper pennies were present at the battle and that they represent the position of three different British soldiers at the battle (Figure 70).

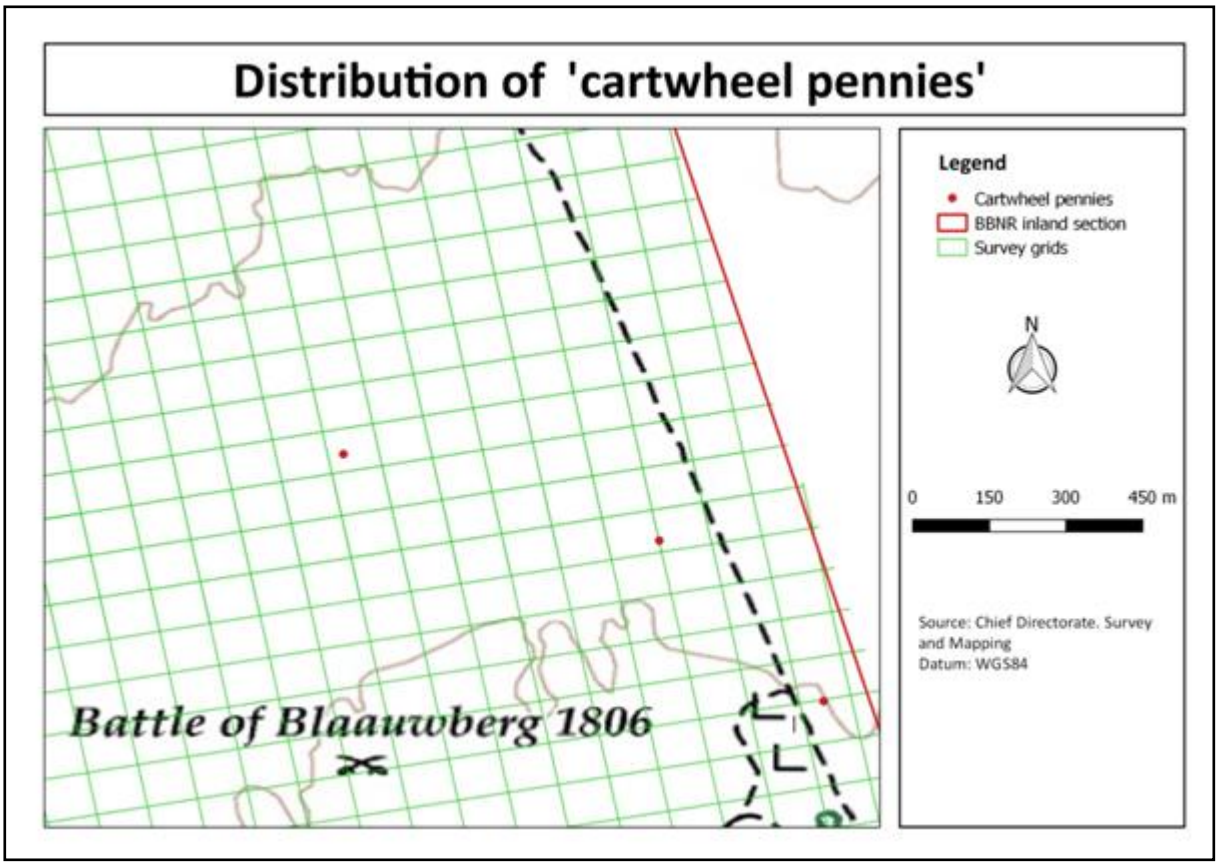


Figure 70. Map indicating the position of the three so-called 'cartwheel pennies'

The first copper penny was retrieved from the area next to Borrel dam. It is possible that the British soldier stopped and rested at the spring and in the process lost the coin (Figure 70). As this position is slightly away from the main battlefield, two other possibilities could explain the soldier and coin at the spring. Firstly, the British Second Brigade advanced towards the Batavian line to confront them in battle, as they were positioned directly opposite the Batavian defensive line (Cannon 1848; 1852). The British First Brigade came in at an angle and fell in behind the Second Brigade. As the route the British First Brigade followed passed Borrel dam, it is possible that the soldier/s stopped for a water break. A second perhaps more realistic suggestion for the coin near Borrel dam is that the 24th Regiment passed this area after the battle. The 24th Regiment was sent to Kleinberg to dislodge the burgher cavalry at the start of the battle, in which they succeeded (Cannon 1848; 1852). It is likely that that they rested at Borrel dam to take in some much-needed

water on their way to Blaauwbergsvlei. This is also the route the Reverend Martyn took to reach the battlefield (Smith 1892: 123).

The second copper penny (Figure 70) was retrieved in the main battlefield and could possibly have been lost by a British soldier during the battle. The third copper penny (Figure 70) was retrieved in the outspan area, probably because it was lost by a British soldier during a rest break at the outspan area.

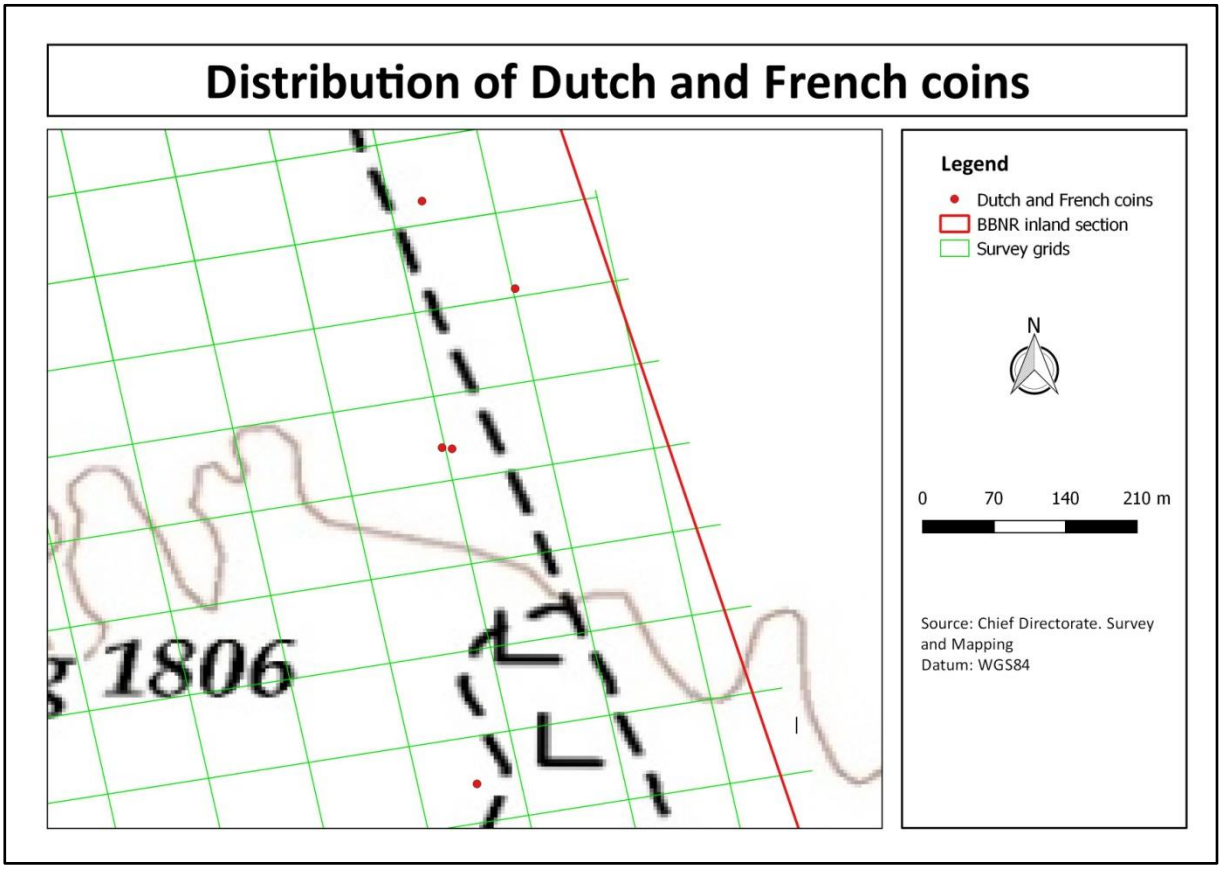


Figure 71. Distribution of Dutch and French coins

The first coin of interest is the French coin with a value of two Sols (Figure 71). Even though the date was not clear, the marking on both sides of the coin suggests that it dates from 1738 to 1760. The date itself suggests that it was possible for the coin to be present during the battle and probably belonged to a French marine. A further aspect about this coin is that it has a small hole close to the edge, suggesting that it was worn as a pendant.

To establish the east–west positioning of the Batavian forces, retrieved artefacts with a specific French, German or Dutch origin or character are significant. The order of the

Batavian regiments could easily be derived from the various maps produced after the battle and primary documents (M3/21; M1/2064–2071; VC80: 26), but the question remains exactly where, geographically, were these regiments positioned? The French coin suggests the position of the French Marines in the east–west positioning of the Batavian troops. Unfortunately, the French coin was not retrieved from a position that might suggest the original location of the French Marines but was instead retrieved near the field hospital. This suggests that the bearer of this coin pendant might have been wounded or killed during action on the battlefield.

The four Dutch coins retrieved from the battlefield pose a different problem in the analysis process. Two of the coins, dating to 1679, and 1602 to 1690, respectively, were most probably too old to have been present on the battlefield. The first Stuiver Kampen coin, dating to 1679, could pinpoint a route travelled by one of the earliest European travellers within this area. The second coin, a six Stuiver Dutch coin, is heavily worn, but from the markings, it could be established that it dates from 1602 to 1690. Similarly to the Kampen coin, this coin shows some of the earliest routes travelled within this area.

The other two Dutch coins, dating to 1766 to 1792, and 1788, respectively, could have been present at the battle and probably belonged to Dutch soldiers. The 1766 to 1792 Zeeland coin was identified by making use of the markings as the date has been worn away, while the other coin is a VOC 1788 coin. The locations of these two coins could suggest either the positions of the Dutch troops during the battle or the routes travelled within this area.

6.7. Conclusion

The individual analyses of the various artefact classes provided information about the 1806 Battle of Blaauwberg. While the analysis itself proved significant, the spatial distribution of the artefacts shed valuable light on the course of the battle. Individual spatial distribution maps reveal aspects of the battle that cannot be obtained from historical documentation, but the artefact classes cannot be studied independently as they all form part of the whole sequence of battle.

By overlaying the spatial distribution of various artefact classes, high density areas are observed, like individual artefact classes. These high density areas, or superimposed areas, however, either reveal diverse aspects of the battle, or confirm conclusions made during the analysis. Firstly, the impacted musket balls in relation to the retrieved buttons is important (Figure 72) as the correspondence between the high density areas in both artefact classes suggests possible areas of intense fighting. In addition, the location of the high density areas, as discussed previously, resembles the general retreat of the Batavian defensive line. This retreat did not occur along a single line, but was staggered, with different regiments or groups keeping the enemy at bay, allowing the others to retreat, and then reversing the roles. Since the high density areas of buttons reveal areas of intense fighting, the spatial distribution of both buttons and impacted musket balls (Figure 72), similarly Figure 73, also shows the distribution of buckles. The spatial distribution of high density areas reveals a similar pattern, confirming the areas of intense fighting during the Batavian general retreat.

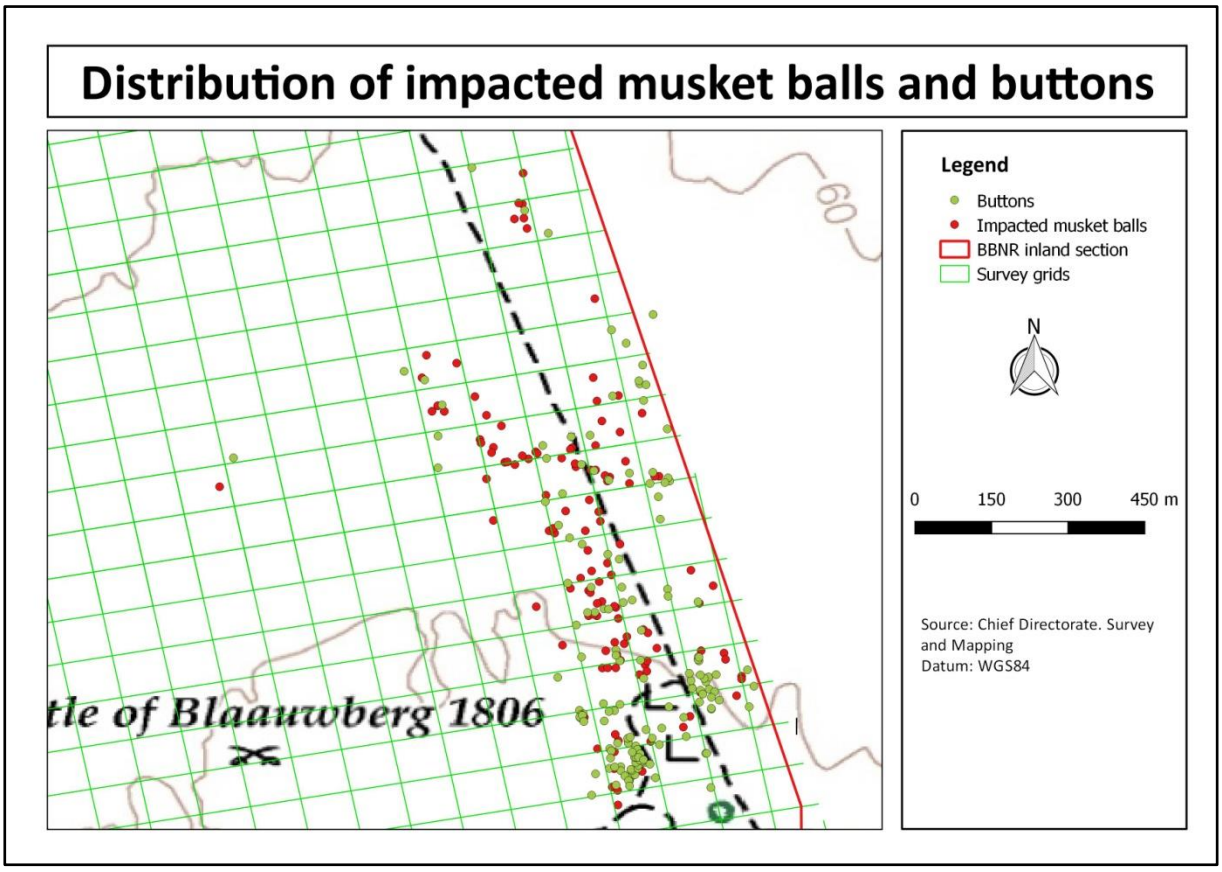


Figure 72. Distribution of impacted musket balls and the retrieved buttons

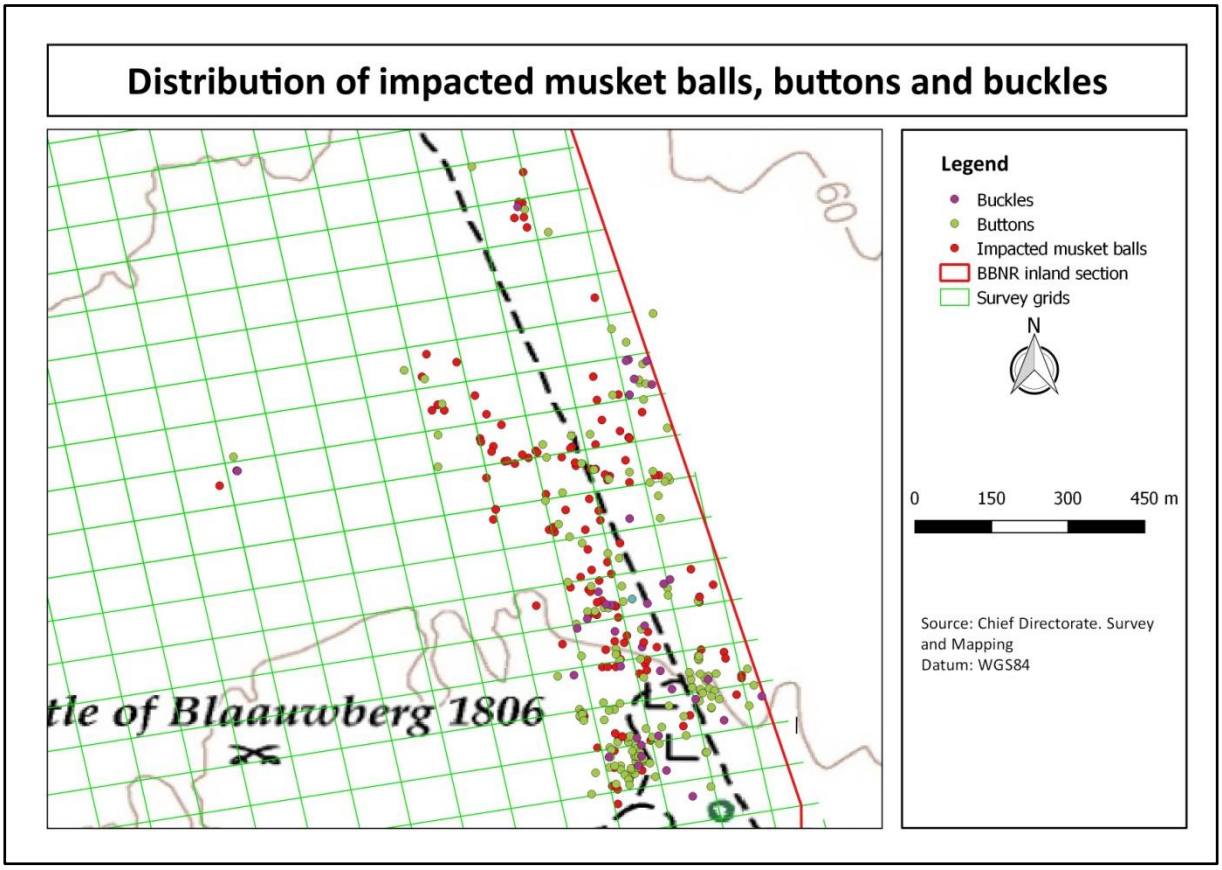


Figure 73. Distribution of impacted musket balls, buttons and buckles

The main north-south route was used by the British Second Brigade to advance across the battlefield, but was most probably also used by the Batavian forces to retreat from the battle. The route has therefore played a significant role during the development and course of the battle. The archaeological evidence confirms the significance of this route, as a high density of finds has been located near this route.

The delineation of the battlefield and the exact positioning of all the regiments remains a contentious topic as it would provide a clear depiction of precisely how the battle transpired. Unfortunately, the archaeological evidence is not complete, and any delineation or attempt to position the various regiments would be based on assumptions. The incomplete archaeological evidence is because of permit conditions that did not allow for surveys beyond the boundaries of the BBNR, and an extremely dense overgrown area within the battlefield that proved to be a significant challenge. However, the archaeological evidence has confirmed that the battlefield extended beyond the eastern boundaries of the BBNR, into privately owned land. The Batavian mounted artillery of Pelegrini and the cavalry

were positioned out of the confines of the study area, and their positions were not investigated. Since a high density area of cannon projectiles has been identified, Pelegrini's possible position could be assumed but not confirmed. Unfortunately, the high density area of retrieved cannon projectiles has been identified within an area extremely overgrown with alien vegetation. This area could not be completely covered during the field surveys to obtain comprehensive archaeological evidence.

The historical landscape had a significant impact on, not only the location of the battle, but also on the course of the battle. The landscape did not determine the outcome of the battle, even though it influenced decisions taken during the battle. Firstly, the location of the battle inland or east of Blaauwberg Hill, beyond the dune field, is because of the main north-south route circumventing the sandy coastline and dune fields. General Baird was aware of the environment and planned his march to Cape Town along this route. General Janssens, consequently, also viewed this route as the main access route that required defence and his intervention. As discussed above, the landscape further affected the course of the battle as, from the archaeological evidence, it is unlikely that the British made use of their light 6-pounder field cannons, since these were dragged by marines through the thick sand. The infantry advanced more rapidly, with the light 6-pounder field cannons trailing and unable to fire. Further, the excessive heat, absence of water, thick sand and difficult vegetation to traverse, possibly resulted in the British not pursuing the retreating Batavian forces beyond Blaauwbergsvlei farmhouse. The environmental aspects, together with the Batavian mounted artillery and cavalry, positioned towards the east, probably resulted in the British Second Brigade targeting the gap within the Batavian defence line created by the collapse of the 5th Regiment of Waldeck. The Second Brigade appears to have attempted to make use of the easier route since the archaeological evidence points towards a more funnelled approach than a line approach.

The archaeological evidence further provides confirmation of the presence and location of both the spring at Borrel dam, and the outspan at Blaauwbergsvlei. The archaeological evidence retrieved from Borrel dam also points to the route followed by the 24th Regiment after the skirmish at Kleinberg. The high density of artefacts retrieved from the area near

Kleinberg confirms the skirmish within this area, and suggests the possible location of graves within this area.

CHAPTER 7. DISCUSSION AND CONCLUSION

Historians have studied and produced several accounts of the 1806 Battle of Blaauwberg but there has long been uncertainty about the exact location of the battlefield and associated strategic positions. After the initial survey attempts, archaeological research was required to resolve aspects about the battle that the historical documents could not clarify.

The aim of this research was to investigate the impact and the strategic use of the landscape during the 1806 Battle of Blaauwberg and provide an archaeological perspective on the event. The historical records were of great help in reconstructing the events, but the archaeological evidence provided the details to complete our understanding of the battle. The reconstruction of the historical landscape was required to place the events within the larger landscape. This was only possible by studying the current geographical features and using their positions to interpret the archaeological evidence and the historical documentation.

Five main geographic areas within the battlefield landscape were investigated, and yielded enough archaeological material to analyse and make conclusions. The archaeological assemblage included some material that was not battle-related, and this was ignored during the analysis. Five battle-related artefact classes were analysed and included musket balls, cannon projectiles, buttons, buckles, and coins. The results of the artefact analysis in association with the reconstruction of the historical landscape offered further clarity on the battle events.

The archaeological research succeeded in addressing the following aspects of the battle:

- To match historical features with current geographic features in reconstructing the historical landscape;
- To provide clarity on the location of the historical routes;
- To establish the geographic extent or spatial distribution of the battle;
- To delineate the battlefield;
- To provide insight into the progress and development of the battle; and

- To evaluate the influence of the landscape on the decisions and movement during the battle.

The reconstruction of the historical landscape was an important aspect of the research to understand the development of the battle and associated decisions taken. It was necessary to study the historical maps[27] and compare these to the current landscape. The current landscape has features that were also present in 1806. Figure 74 shows the location of the study area and indicates the most important features used in the landscape analysis.

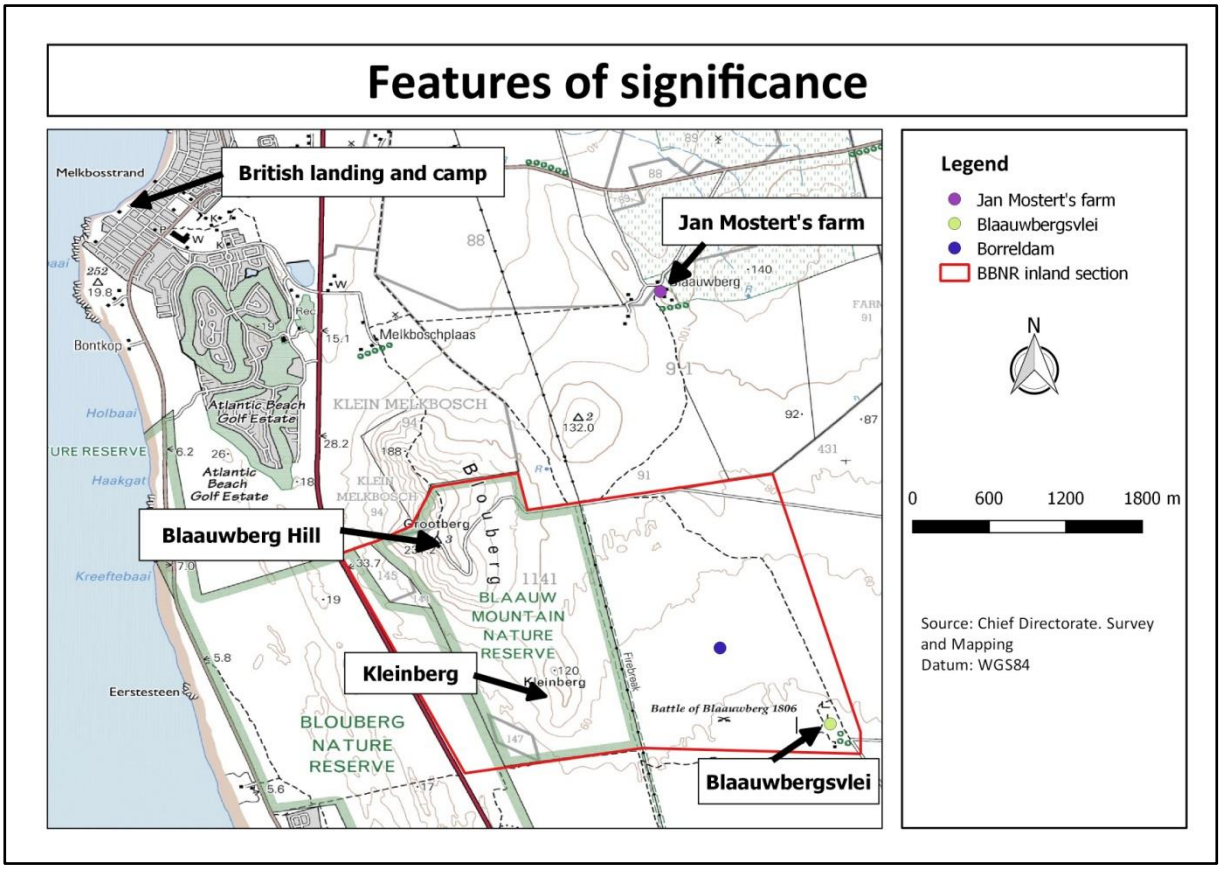


Figure 74. Location of the study area on an extract from 1:50 000 topographical maps (3318CB, CD, DC and DA c2000) showing the assumed location of the Battle of Blaauwberg (Chief Directorate: Surveys and Mapping 2010). Also indicated on the map are the most important features used in the landscape analysis.

The locations of Jan Mostert's farm and Blaauwbergsvlei are shown with Blaauwberg farm (Jan Mostert's farm) situated to the west of north from Blaauwbergsvlei (Figure 74). On the historical maps, Jan Mostert's farm is situated towards the east of north from Blaauwbergsvlei. This places doubt on the accuracy of the historical maps. A possible reason

[27] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

for this could be that the historical maps were oriented towards magnetic north and not true north. The slight variation that occurs could be the difference in angle between true north and magnetic north.

The dune fields situated to the east and the west of Blaauwberg Hill are important features that influenced the battle. Their location determined the position of the main routes within this area. Even though there were routes through the dune fields, the main north–south route was situated towards the east of the dune field. This route also determined the defensive strategy of General Janssens, and the approach by the British. This route was therefore an important factor in determining the position of the battlefield.

The various routes cross the landscape in several directions but also form a distinctive pattern. These routes have disappeared over time and are mostly covered by alien vegetation. The archaeological surveys brought forth evidence for some of these routes. It was not possible to determine the exact location of each individual route, but the pattern of the routes was identified. High concentration areas of archaeological material provided evidence of the routes. The locations of artefacts associated with transport, such as wheel parts and horseshoes, were significant in determining the locations of the routes.

Two main routes were identified leading from Blaauwbergsvlei to Jan Mostert's farm. The high concentration of artefacts along these areas showed the position of the routes. One east–west route and another route through the dune field were identified. These routes are significant in understanding the development of the battle as they were used as approach and retreat paths.

The two north–south routes show the approach by the British Second Brigade as they advanced across the battlefield. It is also argued that the British approach was not extended across a broad front, but rather funnelled near the roads. This is in contrast with the general understanding of the typical European battle style during the Napoleonic era (Figure 75).

Figure 75. Undated painting showing the 1806 Battle of Blaauwberg (Artist unknown, 44995 Library of Parliament, Cape Town)

The battle, from an artist's point of view, illustrates the battle in typical European style (Figure 75). Both armies were spread out, while the British were advancing. The archaeological evidence, however, suggests that the British did not advance in line formation. Their advance was along the easier routes and not spread out as shown by the artist.

Pelegrini's Horse Artillery was situated on the Batavian right flank (Figure 75) and continued their cannon fire even as the British passed their position. For Pelegrini to depart from the battlefield, he must have used a route towards the east. This east–west route was identified by the high concentration of artefacts and the coin distribution. This route made it possible for Pelegrini to have a great influence on the battle, while knowing that he was able to retreat unscathed.

Unfortunately, the research could not confirm Pelegrini's artillery position because it was situated outside the BBNR. By calculating the firing distances of the cannon projectiles and identifying the east–west route, however, the location of the mobile horse artillery can be assumed. From this position, it was possible for Pelegrini to fire canister shot and grapeshot at the approaching British Second Brigade. Pelegrini was also able to retreat without hindrance, even after the British passed his position.

The historical maps[28] of the battle show the location of the battle but these maps are not accurate. The archaeological evidence reveals the extent of the battlefield and provides insight into the different areas of the battlefield. Figure 76 shows the extent of the battlefield as seen from the distribution of the artefacts. The eastern perimeter of the battlefield is not clear, as the BBNR fence line formed the boundary of the survey area. The high concentration of artefacts near the fence line suggested a similar pattern towards the east of the fence line. Towards the west, the concentration of artefacts ends near the dune field. Few artefacts were retrieved in the dune field suggesting that little fighting occurred within this area. Few artefacts were retrieved south of Blaauwbergsvlei, suggesting that no fighting occurred beyond the farmhouse. It further suggests that the British did not pursue the retreating Batavian forces.

[28] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

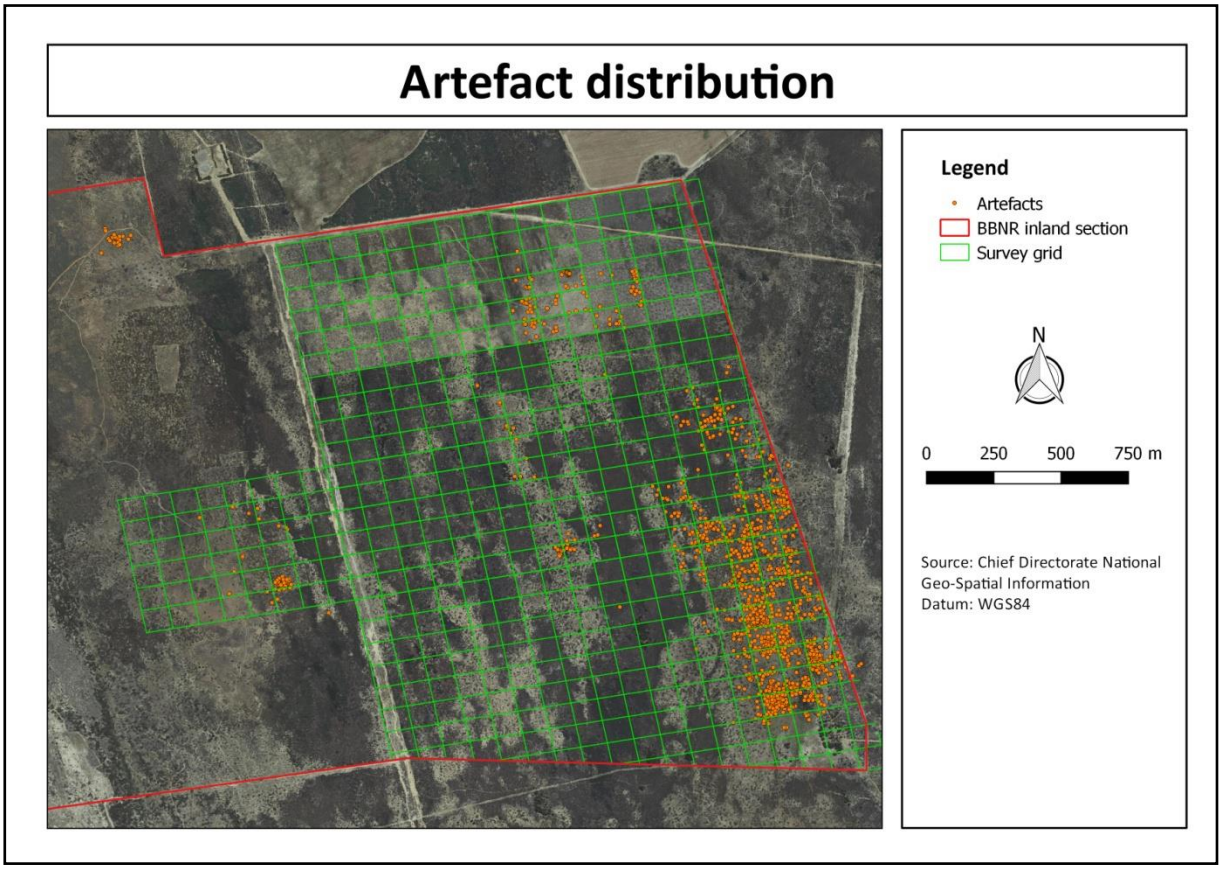


Figure 76. Artefact distribution on the battlefield

The northern extent of the battlefield was more difficult to determine, as the dense alien vegetation affected the surveys. The British artillery area revealed few battle-related artefacts, but the two cannon projectiles suggest the British artillery positions. These two cannon projectiles also show the northern extent of the battlefield. The battlefield has an elongated shape and appears to be near the main north–south routes. The shape of the battlefield suggests that the British did not attack in a line formation. The battlefield was contained near the roads because the adjacent areas were too difficult to pass through. Further, the continuous cannon fire from the east, where the horse artillery and cavalry were situated, pushed the British towards the west, while the dune field to the west also limited the battlefield extent. Janssens' decision to position the horse artillery on the right strengthened the right flank, while the dune field on the west formed a natural barrier. The battlefield was therefore contained between a natural feature, and the strategic positioning of the horse artillery and cavalry.

The delineation of the battlefield was challenging as archaeological evidence in two areas was lacking. Firstly, no evidence to the east of the BBNR fence line was collected; and secondly, little evidence was retrieved from the overgrown areas. Further, insufficient information about the smoothbore flintlock muskets was obtained to clarify the distribution of all the musket balls. However, the archaeological data provided enough evidence to delineate the battlefield with relative accuracy (Figure 77).

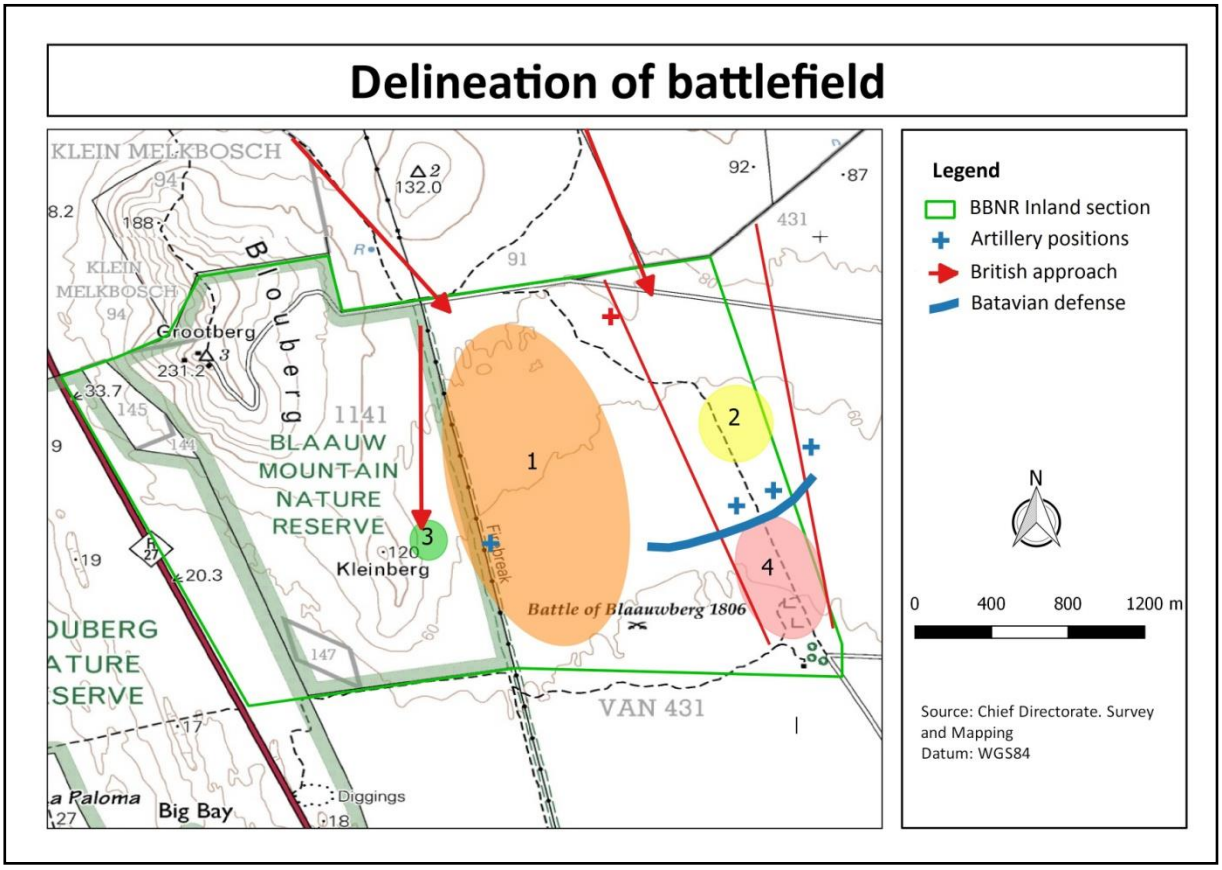


Figure 77. Delineation of the battlefield

Area 1 (Figure 77), as the main dune field, played a role in the location and extent of the battlefield. Area 2 represents the high concentration of cannon projectiles and area 3 shows the skirmish near Kleinberg. Area 4 represents the main area of engagement between the two armies. The red arrows indicate the approach by the British army, with the First Brigade towards the west, and the Second Brigade towards the east. The 24th Regiment approached Kleinberg on the foot of Blaauwberg Hill and on the edge of the dune field. The Second Brigade's approach is indicated as funnelling between the two red lines. The British artillery

and howitzer positions are indicated with a red cross, while the Batavian artillery was situated in front of the Batavian defensive line.

The delineation of the battlefield indicates that the battlefield is not situated where the topographical map[29] symbol shows the battle took place. The actual battle took place almost 800 m towards the north-east.

Janssens' decision to position his men across the main north–south route was well considered and sound. He made use of the natural barrier to the west and eliminated the British cannons on the ships. If Janssens had attacked the British near the shore, the British cannons would have had an impact on the battle. Even though Janssens could not position his defensive line further north because of the early approach by the British, his positioning was sound. He used the layout of the area to his advantage and positioned the core of his army near the main routes, while fewer men were spread out in the dune field. Janssens also covered his left flank by positioning men on or near Kleinberg to prevent the British from striking from the west. As soon as Janssens realised that the grenadiers of the 24th Regiment had been sent to attack his troops on Kleinberg, he moved his artillery to assist. No cannon projectiles were retrieved but the archaeological evidence suggests a howitzer positioned near Kleinberg. Metal fragments that could be remnants of canister shot were retrieved near Kleinberg.

General Janssens was realistic about his chances of defending Cape Town knowing full well he was outnumbered and did not have enough resources. However, contrary to the general perception that his defence was weak, the archaeological evidence suggests that the Batavian forces defended Cape Town tenaciously. Besides the Waldeck Regiment collapsing early in the battle, evidence shows intensive fighting across the length of the Batavian line. Groups of men fought valiantly, allowing others to withdraw, and creating a staggered retreat.

The influence of the landscape on the battle events and decisions taken can be summarised as follows:

[29] 3318CB, CD, DC and DA 1:50000 topographical maps of 2010 (Chief Directorate: Surveys and mapping 2010)

- Janssens used the dune field as a natural barrier to protect his left flank.
- Janssens' men occupied the heights on Kleinberg to ensure the British did not attack his left flank.
- Janssens positioned his defensive line to cover the main route and occupied the route leading to the east.
- Janssens positioned his cavalry and mobile horse artillery on his right flank to funnel the enemy between the dune field and the cavalry, towards his main army and artillery.
- Pelegrini was able to continue firing at the enemy because he could safely escape even after the British had passed his position.
- The approaching British were funnelled towards certain routes because the thick sand and brushwood made marching difficult.
- The British 6-pounders trailed the advancing infantry and were unable to fire.
- The thick sand and heat made marching difficult and prevented the British from pursuing the retreating Batavian troops.
- The British howitzers were positioned on the high-lying area or small hill towards the north of the battlefield.

The analysis of the artefacts proved significant in understanding the various aspects of the battle. Although only five artefact classes were analysed, they provided enough information to make relevant and viable conclusions.

The musket ball analysis gave insight into the extent of the battlefield and the development of the battle. Further, it showed the positions of different soldiers on the battlefield. Unfortunately, this aspect could not be further investigated as insufficient information about the Dutch smoothbore flintlock muskets was available. The area in which the musket balls were retrieved can be directly linked to the positions and movement of soldiers across the battlefield. From the musket ball analysis, the combat areas were determined: high concentration areas show where intense fighting occurred. It is significant to note the uneven distribution of these areas which suggests pockets of intense fighting rather than fighting across the length of the Batavian line. This staggered fighting occurred within the

main area of engagement and not in the dune field. Further, the analysis of the musket balls shows that the fighting was funnelled towards Blaauwbergsvlei and was mainly near the main routes.

The cannon projectile analysis was used to delineate specific aspects of the battle. From the primary documents, it was determined that the Batavian artillery positions were in front of the defensive line. The archaeological evidence could not establish the exact locations of these positions but from the analysis, these positions could be assumed. The area of high concentration of cannon projectiles shows the centre of the British approach towards Blaauwbergsvlei, near the main route. Further, this area could also indicate the position of the British graves. No graves have yet been identified but it is likely that soldiers were buried close to where they were killed.

The British howitzers aimed at the centre of the Batavian line and the first shells landed on the right flank of the 5th Regiment of Waldeck (Hook 1832; Theal 1899; VC80). It was argued that evidence of British howitzer shell fragments would clarify the location of the Batavian line. Unfortunately, only two shell fragments were retrieved within the likely area and determining their origin was inconclusive. Small variations occur between the common shells the Batavians used, and those from the British howitzers. The measurements of the small shell fragments were not sufficiently accurate to confirm their origin. The small size of the fragment and the level of corrosion influenced the measurements and made the results inconclusive.

The absence of evidence of British 6-pounder cannon balls was responsible for concluding that the British could not fire their 6-pounder cannons. As these cannons were associated with the advance of troops, they would constantly fire during the approach. Since no horses were available to pull the cannons, men had to drag the heavy cannons. These cannons fell behind the advancing soldiers and were unable to fire. This afforded the Batavian defence another opportunity to resist the British attack.

The button and buckle analyses provided further information about the extent of the battle. However, the most important aspect of the button and buckle analyses was the location of

high concentration areas. These areas show a similar pattern to the musket ball distribution, and support the conclusion that the fighting occurred in pockets. These areas show that intense fighting occurred between smaller groups of soldiers and not along an extended Batavian line.

The high concentration areas of buttons also reveal the possible graves. It is argued that the soldiers were buried near where they lost their lives. Many years of mole and rodent activity may have resulted in bringing the remnants to the surface. Two areas are of significance and require further investigation. Firstly, the area near Kleinberg had a high concentration of buttons in a small area. It is likely that the graves of the grenadiers of the 24th Regiment are situated in this location. Secondly, the area near Blaauwbergsvlei might be the graves of the soldiers who lost their lives because of the battle. These soldiers were buried by Justinus Keer not too far from his house.

The analysis of coins shows the location of the outspan near Blaauwbergsvlei and the main routes through the area. The copper penny retrieved from the Borrel dam area indicates the route the 24th Regiment took to rejoin the main force.

The influence of the landscape on specific battle events could only be concluded once the locational issues had been resolved. Once an understanding of the locality and extent of the events was obtained, the sequence of events was investigated. Only then was the influence of the landscape or geographical features on the events examined. The landscape clearly affected the events, and both General Janssens and General Baird, either intentionally or inadvertently, based certain decisions on the features of the landscape.

Firstly, General Janssens and his troops spent the night before the battle, 7 January 1806, at Blaauwbergsvlei, wanting to push forward the next morning to be in a strategic position to oppose the British (VC80). Janssens, however, received notice early in the morning, that the British were already approaching, and he was unable to reach the position he had planned. Exactly what this position was is unclear as it is not stated in the historical documents consulted. Janssens pushed forward from Blaauwbergsvlei about 700 to 800 metres, where he positioned the Batavian defensive line. The defensive line was set up perpendicular to the

main north–south route, spreading east from the dune field located to the west. The best-trained soldiers, the 5th Regiment of Waldeck, were placed in the centre of his defensive line.

Janssens' positioning was sound as he blocked the main route and made use of the dune field to the west to prevent the British from attacking his left flank. The positioning of burgher sharpshooters on Kleinberg also highlights that Janssens covered his left flank from an attack by the British. Janssens further mentions that he moved artillery pieces as required (VC80); this was probably done once the 24th Regiment attacked the Batavian position on Kleinberg.

Secondly, during the battle, it was customary for the light 6-pounder field cannons to advance with the infantry. Since no evidence of the British 6-pounder cannons has been retrieved, it can be assumed that the British did not fire extensively with the advancing 6-pounder cannons. This might be because no horses were available to pull the carriages and men were used to drag the 6-pounder cannons through the thick sand, resulting in the cannons trailing the infantry and therefore being unable to fire. If this is the case (as discussed in Section 6.3), it further emphasises the influence of the landscape on the development and course of the battle.

Thirdly, General Janssens commented that the artillery positioned on the Batavian right flank, under command of Lieutenant Pelegrini, still fired well after the general retreat was ordered (VC80: 35). Pelegrini's artillery was firing at the British Second Brigade from the east even though they had passed his position. Pelegrini must have known it was possible for him to retreat from the battlefield without encountering the British that had passed his position. All the historical maps[30] showing the landscape and the battle indicate either one or two routes leading towards the east that Pelegrini could have used to retreat unscathed.

Fourthly, few battle-related artefacts were retrieved within the dune field. A high density of artefacts was encountered up to the eastern perimeter of the dune field, suggesting that very little fighting occurred among the dunes. The main body of the advancing British Second Brigade therefore avoided the dune field, and rather stuck to the open areas of the

[30] NL-HaNA, Janssens / Kaarten, 4.JSF, inv.nr. 13; Smart 1809; M1/2064 - 2071; M3/21; Castle Military Museum

main route. Towards the east, the battlefield probably extends beyond the boundary of the BBNR as high densities of artefacts were located up to the fence line. Since our permit conditions did not allow for surveys beyond the confines of the BBNR, the research could not determine the extent of the battlefield towards the east.

Towards the south, it could be determined that the high density of battle-related artefacts did not extend beyond Blaauwbergsvlei, suggesting that the British did not pursue the retreating Batavian forces much further than Blaauwbergsvlei. This could be attributed to the landscape conditions that made it difficult for the infantry to march through the thick sand. The extreme heat, lack of water and poor fitness levels of the British troops added to their exhaustion, and probably prevented any pursuit of the retreating Batavian forces (Hook 1832: 113; Theal 1899: 272).

It is therefore clear that the landscape had a tremendous influence on the development and course of the battle even though it probably did not affect its eventual outcome.

During the assessment of the secondary and primary sources as well as the maps, it became evident that specific aspects about the battle were dissimilarly represented. Although not possible with every aspect of contradiction, it was argued that dissimilar information could be a result of mistakes, or a lack of information that resulted in a different conclusion. By making use of primary sources to obtain insight into this event, one becomes aware of the differences, dissimilarities and possible mistakes. To determine the reason behind these differences is no easy task. We have no way of knowing why these inaccuracies, mistakes or differences were made and can only assume specific reasons. Further, to evaluate the accuracy of all the primary sources is also difficult, as not all address the same aspects. These sources, however, provide a broad picture of the events from different perspectives. The evaluation of the correctness of the sources could lead to the assumption that a certain bias occurred. We also have no real way of determining if this was the case but can only make assumptions. The archaeological evidence could therefore provide clarity on certain aspects, but unfortunately, due to the nature of archaeological evidence, it is impossible to provide insight into all the anomalous information provided in the source material.

The historical importance and relevance of the 1806 Battle of Blaauwberg might have faded over the course of time, and is probably not part of the current popular discourse in South Africa. Still, many authors have produced their own accounts of the battle. Secondary sources might not be sufficiently critical sources of information to conduct effective research, but they do share information about a specific event that can be digested and discussed. From a historical point of view, the accounts produced by Erasmus, Krynauw and Steenkamp provide valuable insight into the battle as they have conducted in-depth archival and historical research on the events. Their input, discussion and points of view on many of the aspects of the battle are interesting and could easily generate specific archaeological research topics. It is important to use these documents with caution, as they do contain bias that could distract from the disinterested objectives of an archaeological project.

An archaeological perspective on the 1806 Battle of Blaauwberg is significant as it provides additional insight into the existing historical interpretation of the events. By evaluating the impact and use of landscape against both the historical information and the archaeological evidence, a better understanding of the events was reached to clarify any possible misrepresentation of the battle. The historical evidence projects a specific image of the battle that the archaeological perspective supports. The archaeological perspective and approach, however, provides alternative interpretations and further insight that could enhance our understanding of specific events, where words or documents do not capture all the details.

The prominence of this research might be the impetus for a revitalised effort to stimulate and enhance the commercial and public interest in the battlefield through the effective management of this heritage resource. Enough archaeological evidence has been collected to capture the attention of the public and historians and this could assist in developing the tourism potential of this battle site. The history surrounding the battle has been neglected in recent times but it should not be forgotten as it signifies an important event in the history of South Africa. Further, the involvement of individuals from a wide range of nationalities should enable the event to regain its prominence as a significant European style war fought

on the African continent. The unknown and unmarked graves of the fallen soldiers require to be honoured with the dignity they deserve.

The focus of this research is unique in context of South African battlefield archaeology as it could fix the battlefield within the larger landscape, contrary to investigating physical structures associated with a battlefield. Through the establishment of a sound methodology and research objectives, I managed to interact with a large range of volunteers working together towards a common goal, and establishing relationships across divides to the benefit of the domain of battlefield archaeology in South Africa.

The contribution that the archaeological perspective into the 1806 Battle of Blaauwberg adds to the realm of battlefield archaeology in South Africa should not be underestimated. It provides reference for continued archaeological research into the large number of existing battlefields across South Africa.

7.1. Recommendations

During the research, the following aspects of battlefield archaeology and the 1806 Battle of Blaauwberg emerged:

- There is a need for the identification of the graves of the fallen soldiers, as it would clarify one of the mysteries of the battle. The prominence of the battlefield would be elevated by the identification of the graves, as this would create a specific place of remembrance;
- There is a need for the establishment of a memorial or monument on site to remember the battle, as there are no physical visible remnants of the battle that occurred just over two hundred years ago.
- Access control of the site has for the duration of the research been problematic, with BBNR only relatively recently being fully enclosed. Illegal metal detecting, which has been occurring on battle sites throughout South Africa and the world, needs to be addressed, especially within the BBNR and the adjacent private property. Since the adjacent property is not fenced, access is easily obtained, but the significance of this area

to the battle has not yet been determined. The City of Cape Town, HWC and the BBNR need to address this as a matter of urgency.

- South Africa is rich in heritage resources, which include many sites of battle, conflict and skirmishes. Archaeological research on these sites has been neglected and needs to be prioritised. Hobbyists using metal detectors are conducting their own research on these sites and are removing valuable information at alarming rates. The removal of artefacts without proper context or documentation is detrimental to the knowledge and understanding we have of these sites. The authorities need to intervene urgently.

Volunteers on archaeological projects have become part of South African archaeology, but the use of metal detector volunteers within a controlled research environment needs to be cherished, as their expertise, skill and knowledge are crucial to the success of similar research projects. Even though criticism for inconsiderate metal detecting is valid, a large group of metal detectors approach their hobby in an ethical and responsible manner. This group need to be applauded and supported in their efforts to encourage similar behaviour by the metal detecting fraternity at large.

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ANNEXURE 1

General Janssens' map of the 1806 Battle of Blaauwberg